

THE MINING CONGRESS JOURNAL

MARCH, 1918

VOL. IV

SAFETY-EFFICIENCY-CONSERVATION

No. 3



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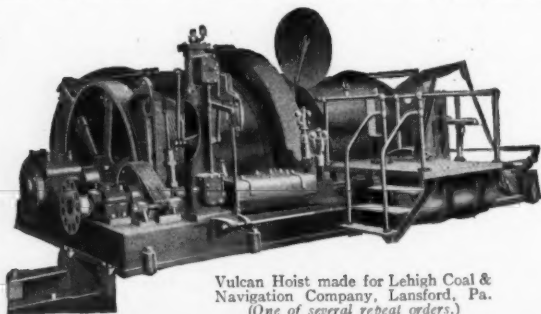
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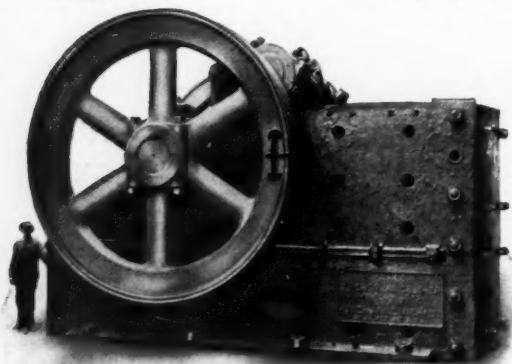
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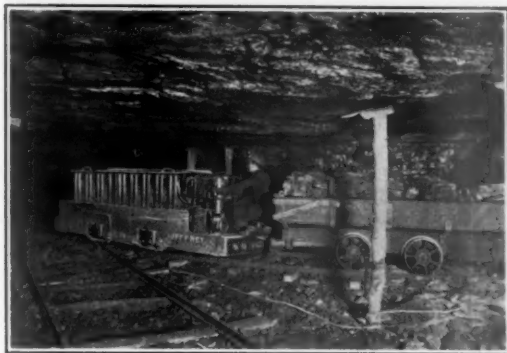
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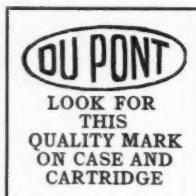
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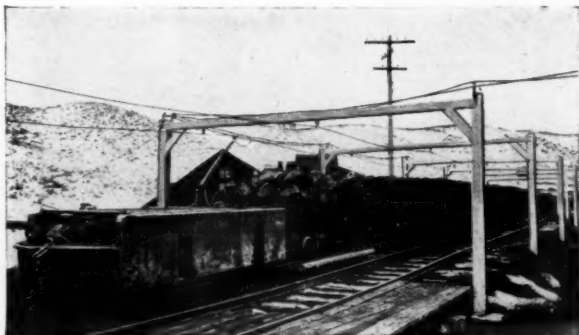
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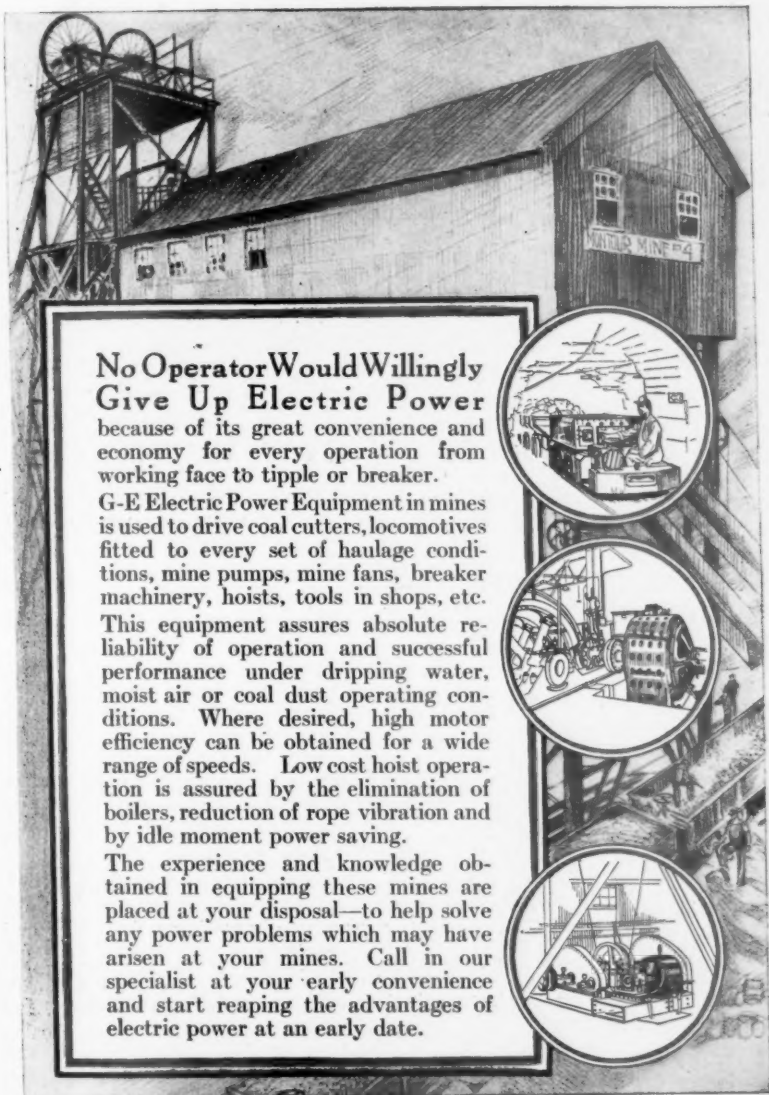
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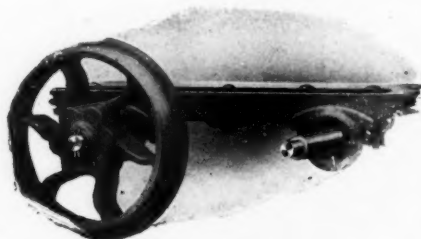
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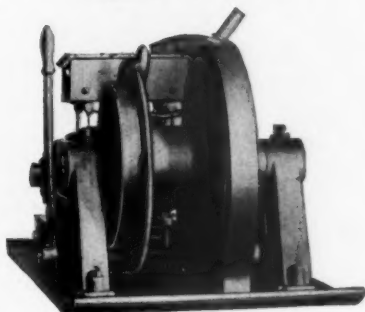
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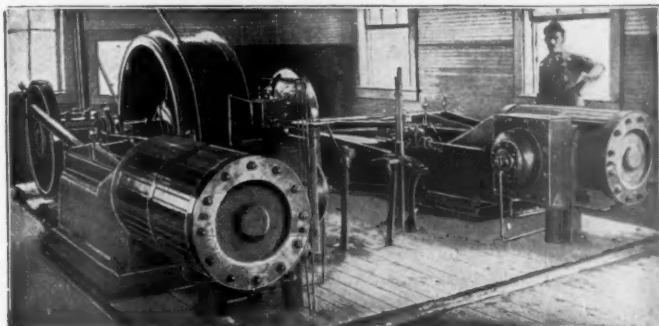
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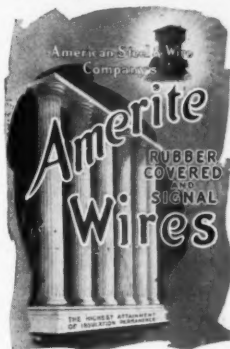
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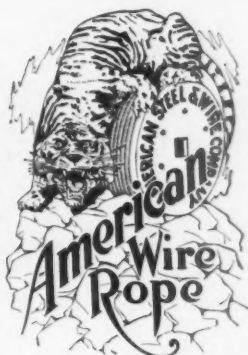
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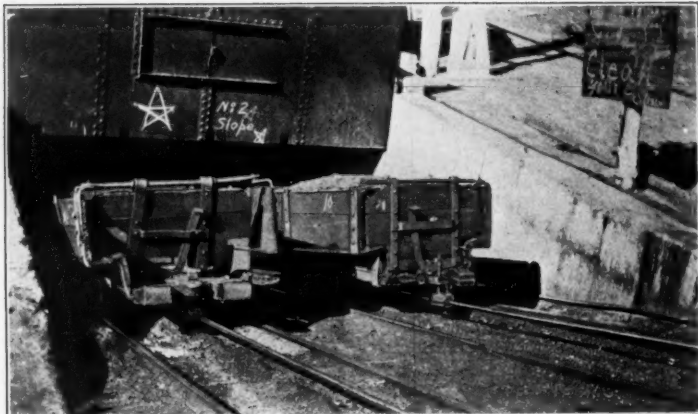
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What you don't see in this comb of honey is a little army of bees working harder than Trojans ever worked, sucking the ambrosia from clover blossoms.

Your pound of honey contains 7,000 grains of sugar. Each clover blossom provides about one-eighth of a grain, so this pound represents the sweet fruitage of 56,000 clover heads.

But the clover head is composed of about sixty florets or flower tubes. To extract the hidden sweet the bee must probe each of these. This means some sixty separate operations on each flower.

If one bee contracted to gather a pound of honey, that bee would have to explore 3,360,000 of these tiny tubes to secure the material. Allowing five seconds for each exploration, and twelve hours a day, it would take this bee some four hundred days to produce a pound.

And this would represent only the gathering of the honey, not the time required for building the wax-case and storing the sweet stuff.

But there never yet was a hive with just one bee to each comb.

Nature commands pooled effort.

Hundreds of bees to each comb made a comparatively quick and easy operation of what would be an impossible task for one bee working alone.

So what we do not see in the comb of honey is the greatest of lessons in the greatest of success-makers—Cooperation.

On every side nature flaunts this lesson in man's face.

The seed itself is nothing.

Sun, soil and moisture must cooperate with the latent germ in order to produce plant life.

The solidest rock is only cooperating atoms.

The strongest man is weak alone. Only by working with others or winning others to work with him can he achieve worthwhile results.

The million men now training to fight under our flag in France couldn't gain a foot of Teuton territory if they went to work one by one.

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The biggest business is bound for failure if its workers do not cooperate.

It is a machine whose parts do not work together. It may run for a while on its own momentum, but it is headed for the dump-heap.

To cooperate is to join forces and something more. It is to join hearts as well as hands, and slip a little soul in the bargain.

Not to cooperate is to court loneliness, life-rust and loss.

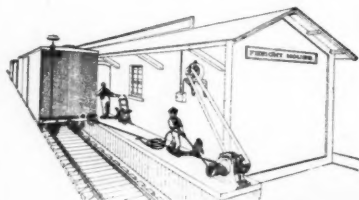
The a. b. c. of success is this—Be a Bee!

COOPERATE!

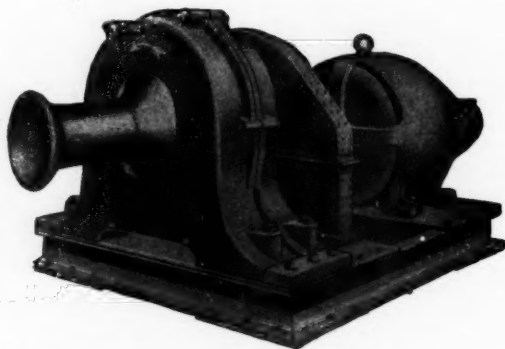
(MORAL: Join THE AMERICAN MINING CONGRESS—the greatest cooperative mining organization.—See page 37.)

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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

A FEDERAL DEPARTMENT OF MINES

In the stress of present war conditions, when many patriotic people, both in Washington and elsewhere, who are giving of their service to the Government, which service is being but partially utilized because of the impossibility of the immediate coordination of their efforts, much talk is indulged in concerning the necessity of creating new executive departments of the Federal Government. We particularly commend President Wilson for his disapproval of the plan for the creation of a munitions department. Permanent governmental agencies should only be created where a continuous necessity exists for more intelligent management of governmental affairs. Present conditions have demonstrated the great necessity for a department of mines, with its head a member of the President's Cabinet. The coal famine from which we are now recovering, which has caused so much of suffering and which has impeded in every direction the production of war munitions and life necessities at the time of the Nation's greatest peril, was bred in a lack of appreciation of coal mining problems. THE MINING CONGRESS JOURNAL believes the catastrophe would have been avoided had there been one man with a proper conception of the mining industry and its requirements sitting in the councils of the President's Cabinet. The mining industry is more important in the United States than in any other nation of the world. The United States is the one big nation which

has not given it proper governmental recognition. There has been a public sentiment which has stood as a continuous bulwark against every effort looking to assistance to the mining industry.

The creation of the Bureau of Mines was the first public recognition given by the National Government, and this bureau was not created in response to a public demand for needed assistance in the development of the industry. Congress was only moved to create the bureau because of the appeal to public sentiment on behalf of the miners whose lives were unnecessarily sacrificed in the conduct of the industry. It was the appeal of the safety-first movement which led Congress to create a bureau of mines.

More than twenty years ago the mining men of the West met at Denver, Colorado, in a great national convention and organized the American Mining Congress for the purpose of securing Federal aid to the industry. The question of safety was not considered at that time. It was pointed out that agriculture has been receiving generous aid from the Federal Government, and through its constructive efforts very great service had been rendered to the agricultural industry and to the people as a whole. It was then pointed out that the problems of the mining industry were more numerous, more difficult of solution, and required a higher degree of scientific and engineering skill than the problems of agriculture. It was pointed out that mining was equally as important as agriculture, and that its highest development required that the mining in-

dustry should first perform its function; that while many agricultural problems could be solved by individual efforts, the problems of mining were of such a character that individual efforts could not afford to work out a solution which would be for the benefit of all, except it be by some great corporation which could utilize and absorb the benefits to itself, or else by those who would cover the invention by patent and thus make its complete use unavailable. Notwithstanding these well-defined arguments, Congress turned a deaf ear to the appeal of the West for assistance in the development of the mining industry until these appeals were coupled with the safety-first appeal to human interest.

At present there is an apparent need for some new agency to stimulate the production of certain minerals needed for war purposes. THE MINING CONGRESS JOURNAL believes this need may be met by purchase contracts which will in a way subsidize production, but it believes there is a continuing and growing need for the coordination of all governmental agencies having to do with mining under one head having access to the inner councils of the nation.

PATRIOTISM AND MENTAL DISHONESTY

No great undertaking can be carried on successfully except there be somewhere lodged a power to finally determine its policy and procedure. The more nearly autocratic that central power becomes, the more effective its operations. The people of the United States, without respect to party, have, since the declaration of war with Germany, stood squarely behind President Wilson, outwardly endorsing and approving his every act, without regard to whether these acts were considered wise or otherwise. It has required much of patriotism to induce the approval of plans and policies known to be foolish and believed to be fraught with grave danger to the country. The coal operators of the United States, with a capacity for the production of 50 per cent more coal than the country could possibly use in normal times, accepted without protest the Presi-

dential order fixing a price upon coal so low as to automatically cripple the 50 per cent excess production facility. Far-sighted coal operators stood aghast at this order, but, in patriotic approval, hoped for better results than their judgment believed possible. The coal industry was unorganized. Perhaps someone, from the national viewpoint, could solve a problem which individual operators by themselves had been unable to meet. At any rate, the effective power of the nation required of them complete approval. The internal dissensions of Russia, which have made her entirely ineffective in the present great war crisis, seemed to be sufficient reason why individual interests should be disregarded and individual judgment set aside in order that a united front could be presented to the enemy.

Unfortunately, the worst misgivings are being realized. Our united front is disorganized, and we are fooled, although with great reluctance, to admit that our industrial machine is handicapped and that new policies will be necessary in order that we may present an effective fighting front. No great satisfaction can be derived from the admission which we cannot escape, that our industrial machinery has broken down with respect to fuel resources, that the productivity of the nation is being curtailed by the shortage of heat and power, in addition to the necessary shortage of labor consequent upon withdrawals of the large number of those who have joined the colors. MINING CONGRESS JOURNAL has consistently refrained from criticism of the Fuel Administration; it has pointed out the enormous responsibility of the Fuel Administrator and the great difficulties of his work; it has believed Dr. Garfield to be an honest, conscientious man, striving in a big broad way to carry the responsibilities of his position. Nevertheless, it believes that the present coal famine is the necessary and natural result of governmental interference with the orderly conduct of the coal mining business, and that it would be mentally dishonest, as well as unpatriotic, if it hesitated to point out the lessons which should be learned from this unfortunate experience.

THE EARNING POWER OF LABOR AND CAPITAL.

The grave concern caused by the rapidly increasing rate of wages, which was properly felt at a time when the price of commodities was remaining normal or falling, has lost much of its force during these times, when commodity prices are so rapidly advancing. The pinch will come when commodity prices take the great and the inevitable tumble in obedience to the law of supply and demand, while the wage rate will stubbornly, and perhaps properly, resist this law to the extent that resistance can be made effective. MINING CONGRESS JOURNAL believes that a substantial advance in civilization will have been made, in that it believes in the highest possible wages which can be equitably paid by industry. Artificial means may operate to resist the law of supply and demand as relating to the rate of wages. In a country consuming all of its own production this might be made successful, but only by taking from labor itself the luxuries which it might otherwise enjoy. Labor should strive to secure the full benefit of its earning power. To distinguish between the earning power of labor and capital is one of the most difficult questions presented to economists. The invention which enables one man to do the work of ten must not and should not undertake to secure the wages of nine men. Nor, upon the other hand, should the one man receive the wages of ten, leaving no reward to the inventor. Labor without wealth would be largely helpless, and wealth without labor entirely helpless.

In times past capital has received more than its just share but labor has received a very large share of the earnings made possible through invention, which is evidenced by the luxuries which the common people enjoy as compared with conditions before the days of modern invention. If too large a share of the earnings of wealth and invention shall be absorbed by labor, it will hamper those activities, and thus interfere with the world's progress. The best channel through which the world's wealth can be distributed is

that of wages. The proper distribution of wealth presents one of the most difficult problems of economics. An equally important problem is the production of wealth, and one which necessarily precedes distribution. It is probable that foresight and experience will each take part in the solution of this great problem. Experience will travel a road of suffering and want, while foresight and vision will lead through paths of greater comfort and luxury.

UNFAIR COMPETITION

A very great disorganization of business conditions must necessarily follow the priority orders and transportation embargoes which seem to be necessary in order to meet the Government's requirements.

MINING CONGRESS JOURNAL believes that some of the transportation embargoes have either failed to serve their purpose, or else have created a much greater dislocation of government requirements elsewhere. However, this may be, many of these orders are necessary and infallible judgment is not to be expected. There seems to be one sphere however, in which there is great need for reform. The operation of the coal or copper mines, each of which in different degrees are producing a government necessity, most naturally complain when they find that the Government is hiring away their men at double pay to work as carpenters in the construction of a powder plant elsewhere. The best results cannot obtain where competent miners become carpenters by the purchase of a foot rule and a hand saw. The indiscriminate scramble for office help by the bureaus, new and old, in Washington, has been as amusing as it is unbusinesslike. Those familiar with government management of business affairs have long since ceased to expect efficiency.

In the industrial world, however, the conditions are different, and a government controlled plant operated on the cost plus 10 per cent basis, is sure to drive every private enterprise needing help out of business. There is no limit to the

price such a plant can pay for help while the individual enterprise must necessarily produce at a cost below the market price.

The Congress of the United States has spent many years considering the question of unfair competition. Its attention is now called to a competition unfair without limit, which should not be permitted.

THE SILVER SITUATION

A few months ago our Western friends were greatly encouraged by the belief that a necessity was coming for a largely increased use of silver, and that in consequence of this demand the price would be so stimulated as to permit the mining of silver upon a profitable basis in mines in which silver was the principal metal produced. This hope had been stimulated by the embargo upon gold exports and the necessity for the use of large quantities of metallic money in the settlement of foreign trade balances with countries willing to accept silver and to which the payment of gold was either entirely prohibited or greatly restricted by the necessity for governmental approval.

Official Washington has recognized the necessity for the immediate use of large quantities of silver, which were nowhere available except in the United States Treasury, and which reserves were there impounded as a basis for the security of the silver certificates in circulation. Legislation was necessary in order to permit the release of this silver. The withdrawal of this silver required the withdrawal of the silver certificates which it supported, which in turn would, to an extent, disturb the monetary situation by withdrawing a considerable amount of silver certificates from circulation.

Under these conditions, it was thought advisable to permit the temporary withdrawal of the silver certificates and the temporary use of Federal reserve notes to keep steady the volume of money in circulation, the silver to be withdrawn to the extent that contracts for further deliveries of silver bullion were made by

which the silver certificates should be kept intact.

This plan has met very much of approval, but other measures of greater financial importance to the country at large were before Congress, and it was not deemed wise to submit this question until this important legislation should be out of the way. Because of this, silver legislation has been delayed. Congress is making rapid progress, and it is believed that in the very near future the silver question will be taken up for earnest consideration and that a sensible disposition may be made of a question of most vital importance to the nation as a whole.

It is most encouraging that the necessity for the greater use of silver is being considered now by those who are not directly interested in silver production.

THE INCOME TAX PRINCIPLE

There is a growing belief that those lines of business in which unusual profits are made should be called upon to respond to the Government's needs in greater degrees than ordinary property, in that income taxes fall with less burdens than other forms of direct taxation. It is believed that property as such, productive and unproductive alike, cannot, without undue burden, meet the increasing expenses which are to be met through direct taxation, and in consequence that the income tax principle has come to stay, and that it is likely to be graded in accordance with increased profits yielded by business enterprises. It follows that liberal construction of the law so as to take into account the character of a wasting industry as well as correct methods of cost accounting, through which proper allowance is made for depletion and amortization, are both of vast importance to the mining industry.

UNFETTER THE AGENCIES OF PRODUCTION

It is frequently stated that labor is coming into its own. Conditions of stress and great responsibility call par-

ticular attention to the importance of those agencies which are essential to meet the public demand. The public has never before appreciated the importance of the mining industry as it does now. The importance of labor has always been recognized, but its function is now being appreciated as never before. The right to control carries with it a grave responsibility. We hear much talk of a possible food famine. To avert this, every possible agency which makes for food production should be stimulated to its highest power. We are just recovering from the effect of a coal famine, needless and foolish, but none the less real and none the less aggravating. Now is the time when preparations should be made to avoid fuel and food famines in the future. Proper notice being given and sufficient liberty allowed, the law of supply and demand will meet every requirement. Shall we permit it to operate, or shall we, by official restriction and red tape, by interference with well-established laws, by fuel administrations and price-fixing activities, interfere with the operation of this law, which automatically commands the active service of the best in each given line of industry? Shall those who have heretofore successfully managed a certain line of business be reduced to the rank of those who subversively execute orders received?

To enable our naval and military organizations to exert the greatest power, all the machinery of production, transportation and exchange must be operated under those laws which will secure the maximum of efficiency. Preparations for planting spring wheat must begin shortly. No power is sufficiently forceful or acute to be able to harvest a crop which has not been planted; no furnace can produce power with coal which has not been mined; distributors cannot function until the railroads have delivered; the railroads cannot deliver until the articles are ready for shipment.

The immediate problem at the beginning of the next season is to get sufficient coal in every bin of the country at the earliest time possible to meet the requirements of the year. The coal mines of this country are able to produce much

more than can possibly be consumed. Every agency which interferes with the free distribution of coal is a public menace. Few people are able to buy more coal than they need, and those who do will be forced to divide with their less fortunate neighbors in case another coal famine should be upon us. A dire extremity levels all ranks and destroys all property rights. Get the coal distributed in the various sections of the country where it is likely to be needed and few people are likely to suffer.

Let us kick out of the road every agency, governmental or otherwise, which interferes with the free production, distribution or exchange of both food and fuel, and let the promise of a proper reward stimulate every enterprise to its full activity, and we shall have enough of all of these necessities for ourselves and for our Allies.

MAKING DEMOCRACY SAFE

One of the most striking addresses delivered at the recent meeting of the American Institute of Mining Engineers in New York City, was that delivered by Samuel A. Taylor of Pittsburgh, Director and former President of the American Mining Congress, and engineer of the Fuel Administration in Washington. A patriotic appeal to lend every possible assistance to the great world effort to make the world safe for democracy was coupled with an appeal that we should also be mindful of the necessity of making democracy safe for the world. This epigrammatic statement should command universal attention, as we are drifting farther and farther away from the principles of government contained in the Constitution of the United States, and based upon the will of the people, as expressed through its representatives.

In these days, the distinction between a pure democracy and that form of government in which people express themselves through chosen representatives and thus make possible an executive expression of the will of the majority, has in great measure been lost sight of by many people. At this time, the necessities of the

situation require executive power even to the limits of autocratic power in order that all the forces of the nation may be made to act as a unit in its present great emergency.

The Government has taken over the railroads, it has assumed control of many lines of industry; its present thought looks to the assumption of the control of all industries. To the extent that this is necessary, MINING CONGRESS JOURNAL gives it hearty approval, but it does not believe in any government interference with any business which is meeting the public requirements. It does not believe in any interference or control of private business, if the results aimed at can be secured in any other way. It therefore opposes any increases in autocratic power, except as these are absolutely necessary, and upon the other hand, it is gravely concerned because of the socialistic tendencies of the time which, when the autocratic power is surrendered, as some day it will be, is likely to assert itself in a dangerous way.

Democracy cannot be safe for the people and for the world except as it shall express itself through the will of the majority and this necessarily means a representative government, a government under the Constitution of the United States.

JUSTICE TO PUBLIC

LAND CLAIMANTS

Among many strong presentations of the Western point of view upon the public land question now being considered by the House Committee on Public Lands, the appeal for justice delivered by Judge Tully Scott, of the Supreme Court bench of Colorado, is worthy of particular attention. On the face of this situation, as it is understood by the public, it may seem that there is no call for such expression, but when it is comprehended that the rights of coal claimants in Alaska were not only destroyed, but the right of an appeal to the courts was taken away by Congressional action, and that the rights of legitimate oil claimants are subject to similar action under the present bill, the statement seems timely.

THE MINING CONGRESS JOURNAL, has always contended, and still insists, that dealings between the United States Government and its citizens should be upon a basis of absolute good faith, and that the right of any citizen should be held more sacred than mere property right. Judge Scott's statement was, in part, as follows:

"Congress in 1872 adopted our mining laws. They gave us what is known as the Placer law. At one time the Secretary of the Interior decided that oil did not come within the Placer Act. In 1897 Congress passed a law declaring that it did. Congress said to the people of the West, 'You may enter these oil lands if you please and you may develop them and you may secure titles.' The prospector did enter. That constituted a contract between the Government and the prospector.

"The surprise came when the President of the United States withdrew these lands which we had entered and upon which we had spent our money.

"Of course nobody believed that the President had the power to withdraw lands that had been pledged by Congress to these people under solemn obligations. The President himself at the time stated his doubt of its validity. But the Supreme Court of the United States by a divided Court said that he had that power and with us that is law.

"Now the relief can come only from Congress. We cannot go into the courts. The question is a question of common decency. If it involved a transaction between individuals you would say that there should be a compliance upon the part of the grantor of the land. At this time shall Congress permit its citizens to believe that it does not do business upon principle of honor and good faith. If there ever was a time when the Congress of the United States should appeal to the confidence of the citizen, it is now. When you are asking of our sustenance, when you are asking our manhood to offer up their lives as evidence of patriotism and devotion to country, the Congress of the United States should show to its citizenship that it does business in good faith with its own."

A BLOT ON THE HONOR

OF THE NATION

Forgery is the act of making or altering, with intent to defraud, a writing purporting to be a valid obligation in such a way as to work injury to another.

In the eyes of the common law, as well as by statute, it is classed with burglary and manslaughter. It requires a high-grade villain to perpetrate the crime

effectively. A written document, which alone can be the subject of forgery, is not more sacred than the law of the land to which all law-abiding citizens look for protection. The decisions of the courts are not more effective where courts are open to the parties than the ruling of the administration in putting into effect those laws where the parties are bound by administrative rulings. When the law or the construction placed on a law by the administration gives title to prospectors who make a discovery of valuable mineral upon the public domain, no change in the ruling should be applied to the citizen who, accepting the governmental proposal in good faith, has spent his time and money in making a valuable discovery. To change the rule after the acceptance of the proposition may be different in practice, but not different in principle, from the change of the wording of a document to the disadvantage of the promisor.

The Government of the United States promises a patent to a certain acreage of land to any prospector who would discover and develop minerals thereon. The Senate of the United States has passed a bill taking care of the prospector on the public domain who has developed the oil which is now serving so important a part in the great war.

It is understood that three members of the President's Cabinet and two members of the House Committee on Public Lands have agreed to press an amendment to the Senate bill which will alter the basis of reward which induced the development. The consummation of such a plan would not be forgery, although accomplishing the same results and partaking of much of the heinousness involved in that crime.

The Alaskan coal leasing bill contained a provision which deprived Alaskan coal claimants of their just rights in the coal lands and of their right to a hearing in court. The law, as was freely predicted before and at the time of its enactment, has proved to be abortive. It has locked up the coal reserves of Alaska and has forced the transport to the Pacific fleet of coal from West Virginia, for the want of which the people in Washington, Phil-

adelphia, and New York have been suffering.

The proposed House amendment to the Walsh-Pittman bill will not create an oil famine, but it will do worse. It will place another blot upon the honor of this great nation, which we love in spite of the dishonorable acts of some of its representatives.

CAPITALIZING THE WAR

About the most unpatriotic thing which has come to the attention of the writer, is the effort of many, very many, business organizations to make pretense in their appeals to the public, that patronage given them will be an aid in winning the war. The hotel menu with its wheatless and meatless days, with its continually shrinking portions and its frightfully increasing prices, asks you to be content and help win the war. In your hotel room for which you are paying an increased price, you are met with the request to turn off the heat and the light and help win the war. It is related that a certain landlord instructed his chef to cut in two the portions to be served guests in accordance with the order of the Food Administration, while he himself in order to equalize the situation, would double the prices.

The rule of service to those who cannot go to the front is exceedingly simple. "Consume less and produce more, and from the increased earnings contribute a proper share to the Government." Business must be enabled to earn more than ever before in order that funds may be accumulated from which war expenses may be met. The greatest service which the average man can render his country at this time is to speed up production of all necessities, giving special attention to the production of food and fuel.

INCREASING GOVERNMENTAL AGENCIES

Affairs of the world are undergoing a very radical and more than likely a permanent change. Governmental agencies are everywhere being augmented. It was once said the officeholders of a certain political party seldom died and never

resigned. It is equally true that governmental agencies always create for themselves a continuing need and seldom or never cease operation. Not only are governmental agencies being rapidly multiplied, but the trend of the time looks toward greater public investment in public buildings, better roads, and continually increasing encroachments of governmental agencies upon fields heretofore occupied by private business enterprises. As these functions are assumed by the Government large blocks of taxable property are removed from the domain of assessment, and burdens must thereafter fall with increasing weight upon such property as still remains in private ownership.

THE WAR EXCESS PROFITS

TAX LAW

The date at or before which returns from taxpayers under the Income and War Excess Profits Law is required, has been advanced from March 1 to April 1, 1918. Regulations issued by the Treasury Department are based largely upon the recommendations made by the War Excess Profits Tax Advisory Committee, and in many respects are exceedingly liberal. It is believed by the Revenue Department that under these regulations the law may be so applied as to prevent injustice to any mining corporation. Hoping that the law can be so applied as to meet extreme cases without injustice, the Mining Congress Committee decided not to make further effort at this time, looking to an amendment of the law by Congress. It is generally believed that the law should be amended and that perhaps for another year's operation the amendment should be sought, yet the belief is general that mining men everywhere should cooperate with the Bureau of Internal Revenue in efforts to so apply this law as to promptly and effectively provide the Government with funds which it must have in order to meet its war and general obligations. The Secretary's office is greatly gratified with the results of the efforts looking to a proper administration of the War Excess

Profits Tax Law, and extends its appreciation to all of those who cooperated through this office, and particularly to the sub-committee, whose capable and untiring efforts entitle them to the sincere thanks of the mining industry.

PROFITEERING AND THE WAR

The temptation, and perhaps the necessity, for one who pays additional prices for everything which he buys to add to the charge made for his own product is too strong for human resistance. Frequently, and perhaps necessarily, the value of service must primarily depend upon the cost of its maintenance, to which a reasonable profit is fairly added. The increasing cost of labor, which necessarily means also increased cost of supplies, because these represent other labor, so adds to the cost of production that unless unconscionable profits were the rule in the past an increase of selling price is unavoidable. To the extent that these make for profit, and to the extent that this profit is absorbed by the Government through the excess profits tax law, does this so-called "profiteering" lend most material aid in winning the war.

This profit, as represented by money, is the only means through which necessities shall be made available for the prosecution of the war. Munitions, food and equipment, and, above all, transportation, which makes these materials available at the front, are the prime necessities. Too much criticism of profiteering will not add to the ability of the people to furnish the funds which are necessary for the work of the Government.

Business must earn money in increasing amount, or it will not be able to meet the enormous demands which must be met if we are to win the war.

FEDERAL CONTROL OF

METALLIC MINERALS

In our last issue reference was made to a proposed bill for a metallic mineral dictatorship, under the provisions of which it was proposed to authorize the President to commandeer all of the

agencies now employed in the production of metallic minerals. A general protest was made against the provisions of this bill, it being urged that drastic measures of this sort should be resorted to only in case of the failure of a particular industry to meet the demand of the public in the production of its ores. As a result of this activity, it was decided not to have the bill in its then form introduced into Congress, and a modified bill is now under consideration which is intended to apply only to certain rare minerals of which production is short. It is believed that by proper stimulus these minerals may be produced in this country. A considerable tonnage now employed in the shipment of manganese and pyrites from Spain, Brazil, and elsewhere to this country might thus be released for foreign service. The bill, as now proposed, was considered by the directors of the American Institute of Mining Engineers at its recent meeting in New York City, and by a vote of 16 to 2 was approved. It was urged "that no privately controlled industry can have the detailed knowledge of war needs or the control of all its supplies and markets necessary to effect the adjustment of its activities for war purposes." THE MINING CONGRESS JOURNAL does not believe this kind of legislation should be sought until the more simple and practical methods for stimulating production are exhausted. MINING CONGRESS JOURNAL again urges that "price is the final dictator of production." If the Government is in need of manganese ores, the guarantee of a sufficient price to justify production will immediately put in motion the best possible devised machinery, *i. e.*, individual capital and personal supervision, charged with the necessity of exercising every economy and the greatest efficiency in order to make the greatest profit upon the investment. These are the means through which production upon a commercial basis may be assured. It is within the province of the United States Geological Survey to do everything that geological science can do in locating and defining the extent of mineral ore bodies. It is within the province of the United States Bureau of Mines, through proper

investigation, to determine the method of treatment and to furnish public information to the individuals who are willing to risk their capital and their enterprise in an effort to meet the public requirement. The prime incentive to these activities is the profit which may be earned through the enterprise. More than two million tons of ores are now being imported, a large part of which should be produced from our own mines. Under the stimulation of an adequate price, guaranteed to continue sufficiently long to permit the amortization during the contract period of the difference between present high construction and development costs and the costs in usual times, there would be no difficulty with the governmental assistance referred to, and production will be assured of the highest possible amount of each of those minerals for which there is a demand and for which the adequate price can now be offered and guaranteed. This does not mean the creation of a mineral dictatorship; it does not require any interference with the orderly conduct of business; it does not call for the creation of agencies which will forever be a burden upon the taxpaying public, and it does create industrial taxpaying agencies which will be a continuing benefit to the country as a whole. We dislike to disagree with the very estimable gentlemen who represent the War Minerals Committee; we dislike to disagree with the deliberate action of the directors of the American Institute of Mining Engineers; we dislike to disagree with those eminent gentlemen who graphically portray upon charts the niceties of business organization and who need a mineral dictatorship to fill out a blank space upon the enormous sheets of paper already occupied with various intricate, complex and expensive organization schemes, beautiful to look upon, but carrying possibilities of enormous waste and extravagance in the expenditure of public money. Let us hope that Congress will pursue a sensible and businesslike plan for encouraging the production of those minerals of which the country now stands in need.

SENATOR REED ON THE COAL FAMINE

Upon another page we print copious extracts from a statement by Senator James A. Reed, chairman of the Senate Committee on Manufactures, in which he sums up the testimony given before the subcommittee appointed to investigate causes of the shortages of coal. Senator Reed's conclusions are a scathing indictment, not necessarily of the Fuel Administration, but of the principles which permit an interference with the machinery which, through long years of experience and under the guidance of trained men of superior intelligence and practical experience, has developed. It is an indictment of the policy of price-fixing. It is an indictment of every interference with the law of supply and demand. It furnishes full justification for the editorial statement in the February issue of *THE MINING CONGRESS JOURNAL* that price is the final dictator of production. Where, because of abnormal conditions, the opportunity for extortion exists, it is eminently fit and proper that governmental agencies should fix a maximum price sufficiently low to prevent outrageous extortion, but sufficiently high to permit a substantial profit. This is what was done by the Peabody committee. The interference with this plan has caused the country untold suffering and want, has interfered very seriously with the war preparations of the country, has prevented timely production of supplies for the boys in the trenches, and may result in the sacrifice of thousands of lives. These lamentable results should not be charged to the Fuel Administration, but to the ridiculously foolish principle upon which the Fuel Administration was based and to those official dignitaries who discredited and set at naught the Lane-Peabody plan. It is also a very strong argument against the creation of any further mineral dictatorships and of more simple and effective plans for stimulating the production of such minerals as the country stands in need.

ALL IMPORTS AND EXPORTS BROUGHT UNDER LICENSE

As a further step toward placing the full force of our industrial strength behind the offensive against the enemy, the President has proclaimed that a license is required for all imports as well as all exports.

Since November 28, import licenses have been required for many of the basic raw materials, and importers are already familiar with the very simple method of procuring them. The added inconvenience of applying for licenses for all importations is expected to be negligible in comparison with the advantages secured. The question of what does or does not require a license, with its accompanying uncertainty and delay, will be eliminated. The benefits to be derived from this license system are numerous, one of the most obvious being that the present control over the distribution and use of raw materials which are now imported under license will be extended to all materials, so that at any time a shortage exists or appears imminent in any imported material, the supply thereof may be directed to the uses most vital to our martial requirements, but the most effective manner in which this weapon of import control may be used against the enemy is the prevention of trading with firms of pro-enemy character.

PROMINENT OIL MEN MEET AND LAY PLANS FOR INDUSTRY

At the request of M. L. Requa, Director, Oil Division, United States Fuel Administration, a meeting was held in Washington, last month, of the following-named representatives of the oil well supply industry:

Louis C. Sands, Oil Well Supply Company, Pittsburgh, Pa.; Fred W. Miner, National Supply Company, Pittsburgh, Pa.; F. B. Clark, Jr., Lucey Mfg. Company, Pittsburgh, Pa.; W. K. Hughes, Continental Supply Company, St. Louis, Mo.; M. L. Moore, Frick-Reid Supply Company, Pittsburgh, Pa.; J. H. McDonald, Atlas Supply Company, Muskogee, Okla.; W. M. Paterson, Frick-Lindsay Company, Pittsburgh, Pa.; A. A. Moody, Jarecki Mfg. Company, St. Louis, Mo.

The object of this meeting was to prepare a program for close cooperation between the oil well supply industry and the Oil Division of the Fuel Administration.

The committee suggested the calling together of representatives of the entire oil well supply industry, and that in the meantime a questionnaire should be prepared and sent out to them, covering certain information that it was deemed necessary should be secured so that intelligent discussion of the matter could be had at that time.

LODGE WOULD ABOLISH FUEL ADMINISTRATION

**Massachusetts Senator Says Coal Direction
Should be Turned Over to Secretary Lane
and Francis Q. Peabody**

What is regarded as the most logical criticism of the coal policy of the Administration came from Senator Lodge in an address in the Senate February 27. His conclusions are as follow:

"Let the idea of price fixing by law or edict for domestic consumption be, so far as possible, abandoned.

"Interfere as little as possible with the natural laws of supply and demand.

"Abolish the Fuel Administration and leave the management of the coal situation to the Secretary of the Interior and Mr. Peabody.

"Encourage the purchase and storing of coal for both domestic and industrial use during the summer when the demand is lowest and transportation easiest. I saw that the head of the Fuel Administration had come out in favor of our buying coal yesterday. The day before they had stated that we were to have it rationed.

"Above all, direct every effort to supplying rail-and-water transportation for coal during the summer, and at all times.

"Do not interfere with established methods of distribution, and do not make the fatal mistake of destroying distribution machinery.

"Enforce thoroughly the laws against profiteering, but in seeking to prevent undue profits do not permit the destruction of reasonable profits.

"Stimulate production. This can best be achieved by allowing reasonable profits."

Other extracts from Senator Lodge's remarks follow:

"It seems as if it were better to have as a judge one who knows the law than a layman, and this appears to be a sound general principle in the selection of any man for the performance of duties which affect the welfare of millions of people. The instinct of the untrained and ignorant beginner is not only to use, but to use in an extreme manner, the immense authority and power which have drifted into his possession. He is like a child with a mechanical toy. He wants to see the wheels go around. However honest his intentions may be, however patriotic his purposes, the results of the wild efforts of a beginner intrusted with enormous powers are almost certain to be prejudicial to the community at large.

"As I have already tried to show, there was no need of the Fuel Administration, no reason why it should exist at all, and the powers, however amiable the purposes of their possessor might be, have been employed in such a way as to make a bad situation worse and do nothing but harm. I know that in

what I have just said I am open to the suggestion that my criticism is purely destructive. So it is, but it is the destruction which is intended to precede construction.

"I think I have shown that the vital point in the whole coal problem was the railroad situation. Instead of waiting until mid-winter to get rid of the chaos of the priority orders and giving a free hand to the Railroad War Board or to a director to deal with the railroad situation, we were saddled with the Fuel Administration, which could do nothing whatever about the railroad situation upon which all the difficulties practically hinged. So far as the coal situation was concerned, it ought to have been turned over to the Secretary of the Interior, within whose department it naturally came. Mr. Lane is a skilled administrator at the head of a trained organization requiring only the extension needful to deal with the new work. With the Secretary of the Interior as an expert adviser should have been placed Mr. Peabody, who was the head of the Advisory Committee. Mr. Peabody had been dealing with the question. He had made up, as I have pointed out, the best and fairest committee of advisers that I have heard of in my investigation, a committee upon which he had representatives of the miner, of the operator, and of the consumer. He showed on the stand, in my opinion, a wider knowledge and a more thorough grasp of the great and difficult problem involved in the coal supply than anyone who appeared before us. Secretary Lane and Mr. Peabody, through machinery which they had set in motion, had already made an arrangement tentatively which lowered the prices of bituminous coal nearly 100 per cent. and yet established only a maximum price sufficiently high to permit flexibility of prices beneath. In other words, they had interfered with the natural laws as little as possible. They are both eminently competent men. Why they were set aside I do not know. They are both undoubtedly Democrats.

"It is true that Mr. Peabody, by character, ability, foresight, and intelligence, has been honestly and largely successful in business. I am aware that such a record is thought objectionable by some persons, but it seems hardly a sufficient reason for his displacement from a position for which he was so peculiarly fitted. I cannot say why the coal problem was taken from him and the Secretary of the Interior and consigned to Dr. Garfield. It is not for me to try to scale Olympus and seek to penetrate its mysteries. It is enough to record the fact that the change was made. In my opinion, if the coal situation had been left in that way in the hands of Secretary Lane and Mr. Peabody, without building up a new fabric of clerks and deputies, a very large proportion of all the troubles we have had, and the suffering and loss which have been inflicted upon the American people during this winter, would have been avoided. If that change were made now, if we were to

return to Mr. Lane and Mr. Peabody, despite all the complications which have been created by the Fuel Administration, I believe the situation would improve, and that by next winter, with the aid of the work done on the railroads, we should be practically without anxiety as to the production and distribution of coal."

REGULATIONS GOVERNING NEW TAXES ARE PROMULGATED

The regulations governing the administration of the personal income tax and the corporation income tax have been issued by the Commissioner of Internal Revenue. The new regulations govern the assessment and collection of income tax under the authority of the Acts of September 8, 1916, as amended, and October 3, 1917. There have been some changes necessitated by modifications in the law and in one or two instances, changes have been made in former rulings. The following are the principal differences and additions:

The question of how inventories shall be taken is left open to be covered by special regulation. Allowance of bonuses paid in addition to salaries as additional compensation is authorized by Article 138.

It is held that payments to nonresident alien employees for service rendered entirely in a foreign country, or other property located in a foreign country, are not payments of income subject to income tax in the hands of the recipient, as from a source within the United States.

Probably the most important rulings are those relating to dividends, to depletion in the case of oil, gas and mining properties and to dividend payments from depreciation and depletion reserves. The ruling as to the former is, in substance, that dividends paid during 1917 will be deemed to have been paid from 1917 earnings if such earnings during the year were greater than the dividends distributed, unless the corporations show that at the time of distribution of any particular dividend the earnings were not sufficient to cover.

A new ruling as an alternative to the existing one has been provided for computing the amount necessary to return capital invested in oil and gas wells, the rule being based upon an estimate of the units contained in the property, and fee owners and lessees are placed upon the same basis in so far as bonuses have actually been paid for leases.

With regard to mining corporations it is stated that in passing on values set up as of March 1, 1913, as a basis for depletion, the department will give due weight to market quotations of capital stock as of that date and to values stated by the corporations in their capital stock returns.

It is held that dividends paid out of depletion or depreciation reserves are in the nature of a liquidation dividend and are a return of capital to the stockholders and not taxable

as income. Such dividends will not be so regarded, however, unless the income and surplus have been first distributed and the fact that their capital has been reduced or partly returned is made public in their published statements.

Provision has also been made reversing a previous ruling and holding as to stock returned to corporations upon reorganization for purposes of resale to raise working capital, that the proceeds when sold shall not be treated as income.

A provision of former rulings that forgiven debts constitute income to the debtor has also been stricken out.

ZINC PRODUCERS COOPERATE IN COMPILING STATISTICS

The response to the Geological Survey's request for the cooperation of zinc smelters in obtaining data for weekly confidential reports of production, stocks and commitments for the war uses of the Government have been entirely favorable. To insure uniformity, the following suggestions were made as to content and form of reports:

1. The week should be considered as closing at 7 p. m. Saturday, and stocks should be given as of Saturday at 7 p. m. However, if more convenient for your company, the week may be closed at some other hour, provided the same hour is taken each week.
2. Statistics should be given in short tons of 2,000 pounds.
3. A single report for all plants and subsidiaries may be made from the central office, or, if necessary to gain time, individual plants may report, at the option of the company.
4. Data on total commitments (spelter contracts outstanding) are desired for the period three to four months in advance of the time of reporting. For instance, all reports made in October should include commitments to January 31, 1918; all reports made in November should include commitments to February 28, 1918, and so on. The figures for commitments should be diminished in each weekly report by the amount delivered that week, and should be increased by the amount of new contracts made for delivery before the limiting date covered by the report.
5. The grades of spelter to be covered by the report are prime western and those defined in the navy specifications of June 1.

POPE YEATMAN IS PLACED IN CHARGE OF NON-FERROUS METALS

The Non-Ferrous Metals Department of the Raw Materials Division of the War Industries Board has been placed in charge of Pope Yeatman, succeeding Eugene Meyer, Jr. Mr. Meyer remains a member of the Raw Materials Division, but for the present is engaged in special work for the Secretary of War. Mr. Yeatman is a consulting engineer of New York.

TRANSPORTATION BLOCKS DISTRIBUTION OF OIL

Priority List Announced by Oil Administrator—Supplies Said to be Sufficient for All Needs.

The presidential proclamation putting certain oil distributors under license is for the purpose of exercising adequate control in view of the fact that transportation facilities are becoming inadequate to supply promptly and satisfactorily all consumers now having contracts for fuel oil. The oil supply is abundant but the Army, the Navy, and the Shipping Board have found need for so many tank ships ordinarily employed in coastwise service that the country faces a possible temporary shortage of sufficient tonnage to care properly for the requirements of the industry.

Movement of oil tank cars has also been greatly interfered with of late, so that the problem of oil distribution is at the moment not an easy one to solve. It is obvious that in the event of insufficient transportation facilities it is highly desirable that the vital industries connected with the national welfare shall receive first consideration. Railways must be supplied with oil, not only for the operation of the locomotives using fuel oil but for plants dependent on fuel oil building locomotives and cars. Army and Navy requirements must also be cared for, as well as public utilities and domestic consumers.

With this idea in view certain oil companies have been placed under license with rules and regulations covering the distribution of fuel oil. The order of these priorities is as follows:

1. Railroads and bunker fuel.
2. Export deliveries or shipments for the United States Army or Navy.
3. Export shipments for the navies and other war purposes of the Allies.
4. Hospitals where oil is now being used as fuel.
5. Public utilities and domestic consumers now using fuel oil (including gas oil).
6. Shipyards engaged in government work.
7. Navy yards.
8. Arsenals.
9. Plants engaged in manufacture, production and storage of food products.
10. Army and Navy cantonnments where oil is now being used as fuel.
11. Industrial consumers engaged in the manufacture of munitions and other articles under government orders.
12. All other classes.

When there is sufficient oil for all, this priority list, of course, will not be operative. If however, there is a shortage, the priority immediately begins to operate as to Class 12, and in rotation each class of less number will be affected; and the priority will continue to operate so long as the shortage exists.

There is at the present time ample oil available for all possible needs, but there is

not sufficient transportation available to carry it from the source of production to consumer.

MEDIATION COMMISSION

ISSUES DETAILED REPORT

In a general analysis of the causes of labor difficulties, with particular reference to war needs, the President's Mediation Commission makes observations, in part, as follows:

"So long as profiteering is not comprehensively prevented to the full extent that governmental action can prevent it, just so long will a sense of inequality disturb the fullest devotion of labor's contribution to the war."

"War has only served to intensify the old derangements by making greater demands upon industry and by affording the occasion for new disturbing factors."

"Broadly speaking, American industry lacks a healthy basis of relationship between management and men."

"There is widespread lack of knowledge on the part of capital as to labor's feelings and needs and on the part of labor as to problems of management."

"Wage increases are asked for mostly in order to meet the increased cost of living, and such demands should be met in the light of their economic causes."

"Repressive dealings with manifestations of labor unrest is the source of much bitterness, turns radical labor leaders into martyrs, and thus increases their following, and, worst of all, in the minds of workers tends to implicate the Government as a partisan in an economic conflict."

"We have failed in the full use and wise direction of our labor supply, falsely called 'labor shortage,' because we have failed to establish a vigorous and competent system of labor distribution."

"The overwhelming mass of the laboring population is in no sense disloyal. Before the war labor was, of course, filled with pacific hopes shared by nearly the entire country. But, like other portions of the citizenship, labor has adjusted itself to the new facts revealed by the European war. Its suffering and its faith are the suffering and faith of the Nation. With the exception of the sacrifices of the men in the armed service, the greatest sacrifices have come from those at the lower rung of the industrial ladder. Wage increases respond last to the needs of this class of labor, and their meager returns are hardly adequate, in view of the increased cost of living, to maintain even their meager standard of life."

"Too often there is a glaring inconsistency between our democratic purposes in this war abroad and the autocratic conduct of some of those guiding industry at home."

"Personal bitterness and more intense industrial strife inevitably result when the claim of loyalty is falsely resorted to by employees and their sympathizers as a means of defeating sincere claims for social justice, even though such claims be asserted in time of war."

JOBBER'S LOSE COMMISSION, CHEAPER COAL PROMISED

**Fuel Administrator Tells of Increase in Price
so Operator Can Take Care of Middlemen**

Reduction in the retail prices of both anthracite and bituminous coal is expected by the United States Fuel Administration to result from its decision to make the prices to coal retailers the same whether sold direct by the operators or through jobbers.

At the present time the jobber is permitted to add to the government price at the mine, a commission of from 15 to 30 cents a ton.

Under the new plan of the Fuel Administration that commission will be eliminated, but the price of coal at the mine will be increased slightly and the jobber will be required to look to the operator for his compensation. This increase, however, will not equal the commission now being charged by the jobber, and the retailer will be able to sell cheaper than he is now doing, Dr. Garfield says. This is the practice that was in use before the Government assumed control of the coal industry, and there are several reasons for returning to old methods, he also states.

Under the system of allowing the jobber a specific guaranteed commission, it developed, according to the Fuel Administration, that it was possible for some operators to adopt the practice of establishing subsidiary companies solely for the purpose of selling, thereby absorbing the jobbers' commissions. Another practice was said to be that of "swapping coal." Two producing companies might agree to act as jobbers for each other. Each might buy the coal of the other, and then sell at the mine price plus the jobber's commission. The operator who sold direct to the retailer was at a disadvantage because he was forced to bear the selling expense, and was not permitted to collect the jobber's commission.

Since the jobber is essential to the conduct of the coal business, the Fuel Administration has given study to means for insuring him a compensation for his services, while, at the same time, eliminating certain commissions which were ultimately paid by the consumer.

Officials of the Fuel Administration are now working on the question of the amount of increase to be allowed on the price of coal at the mines, and these will be announced before April 1, 1918, at which time they will go into effect.

The following announcement was made by the Fuel Administrator in regard to this subject:

"The United States Fuel Administrator makes the following announcement concerning the jobbers and jobbers' margins as defined in the President's order of August 23, 1917. The intention was to preserve a useful service at the hands of men experienced in the distribution of coal and to allow a reason-

able charge for the service. It was the intention, furthermore, to deny this margin to anyone who did not actually render this service. Prior to the fixing of government prices, it was customary for the jobber to purchase coal at a lower price than that generally allowed to the consumer, and to make his profit by selling to his customers at the market price. After the fixing of the government prices, which included an allowance for jobbers' margins, unforeseen difficulties appeared. Many who were not entitled to the margin and did not perform any useful service nevertheless absorbed the margin. It is virtually impossible satisfactorily to police the situation as it stands. The United States Fuel Administrator is satisfied that the only sound basis is to include in the government price a proper allowance for selling expenses, and to provide for the compensation of the distributor in that way.

"The United States Fuel Administrator therefore announces that on and after April 1, 1918, the limit of compensation of the jobber is removed, but that his compensation must come out of the government price at the mine and may not be added to it. The mine prices will be republished prior to April 1, 1918, and at that time a proper allowance for selling expense will be included in the prices."

New Coke Prices Named

New prices for coke at ovens in certain parts of West Virginia, Pennsylvania, and Tennessee, have been promulgated by the United States Fuel Administration. The new prices are effective March 1.

Coke made in Preston County, West Virginia on the B. & O. Railroad between Tunnelton and Grafton and at Meridan, Barbour County, was fixed at \$6.75 for blast furnace coke and \$7.75 for selected 72 hour foundry coke. The former prices were \$6.00 for the first named class of coke and \$7.00 for the latter.

In the Flat Top or Pocahontas district of West Virginia, the maximum was placed at \$8.00. The former prices were \$6.00 for furnace coke and \$7.00 for the foundry grade.

Selected foundry coke manufactured in Indiana County, Pa., from washed coal taken exclusively from the lower bench of coal of the upper Freeport seam is placed at \$8.00 if the ash exceeds 10 per cent or the sulphur exceeds 9 per cent and \$8.50 if the ash is less than 10 per cent and the sulphur is less than 9 per cent. The former price was \$7.00.

By-product coke made in by-product ovens at Chattanooga, Tenn., shall be as follows: For run of oven coke, \$8.25; for crushed coke more than 1 inch in size, \$8.75 and for selected foundry coke, \$9.25. The latter is a new operation and no comparative prices were available.



Harris & Ewing

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Newly Elected Chairman of the War Industries Board

GULF SULPHUR DEPOSITS IMPORTANT WAR ASSETS

A discussion of the sulphur situation has been issued by the Smithsonian Institution. It is written in popular language, and is as follows:

"To the average man on the streets, sulphur may suggest the springtime days of his childhood when he was fed copious spoonfuls of an evil-smelling concoction compounded of this substance and molasses, but he scarcely realizes the extent to which this yellow mineral product, to be seen in any drug store in a bottle labeled 'flowers of sulphur,' enters into the manufacture of the materials of everyday life that surround him. Yet it is not primarily because sulphur is necessary to convert the sap of a tropical plant into resilient and versatile rubber or wood pulp into miles of newsprint paper that this substance claims our attention at this time; rather because it is numbered among those substances of prime importance, absolutely essential to the carrying on of war, as entering into the very fabrication of explosives themselves. Hence it is not only a matter of curiosity, but one of urgent interest to inquire into the sources of this war mineral in the United States.

"In this connection the appearance is timely of a publication of the U. S. National Museum under the title 'Sulphur: An example of industrial independence.' This is by Joseph E. Pogue, of the Division of Mineral Technology, and presents, in a few pages, in a simple and nontechnical manner, the striking aspects of one of the most interesting mineral industries in our country today. A feature of particular value is a series of half-tone plates, made not only from actual photographs of mining operations, but also from several views of a miniature model reproduction of a typical sulphur mine, with the underground disposition of the sulphur exposed to sight, so reproduced as to give the appearance of bird's-eye or aeroplane view of both occurrence and mining. This latter type of illustration is something entirely new in publications of this kind, and its educational value should appeal to all teachers desirous of obtaining a graphic picture of an industrial activity, and the means for passing on this visualization to others, as well as to all persons in any way identified with the numerous industries in which sulphur finds application.

"At the outbreak of the war in 1914, the United States was producing each year about 350,000 tons of sulphur, valued at a little over \$6,000,000. This quantity was sufficient to supply not only the needs of this country, but contributed about 100,000 tons to European markets. With the development of war activities, however, the production has increased to meet the growing needs of munition makers, while the exports have decreased as a result of disturbed trade conditions, and the need for building up reserves of this essential material at home.

"It is a singular fact that the chief raw materials of explosive manufacture are localized in a remarkable manner, and sulphur is no exception to this rule. In the United States practically the entire supply comes from a number of deposits in Louisiana and Texas near the Gulf Coast. These deposits are similar in nature, and consist of a series of beds and lenses of pure sulphur at a depth of several hundred feet from the surface.

"The discovery of the occurrence of sulphur of this type was made as far back as 1861, in connection with a well drilled for oil. All attempts at mining the sulphur failed, however, until some 15 years ago when a highly ingenious method was devised for mining this substance without recourse to the ordinary costly underground operations usually prosecuted in mining. This process makes use of the fact that sulphur melts at a relatively low temperature. By drilling a well through the overlying rock until the sulphur bed is tapped and then sinking a series of interpenetrating pipes through which superheated steam is forced, the sulphur is melted and forced to the surface as a hot liquid, where it is piped to large bins, into which it pours and cools. This process, which is known as the Frasch process after its inventor, has

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been described as one of the triumphs of modern technology, and its successful application to the Gulf Coast deposits has, in the past 15 years, transferred the center of the world's sulphur industry from the Island of Sicily to the United States, making our nation absolutely independent of the rest of the world in this important particular.

"With the development of the world war, the sulphur deposits of the Gulf Regions have, of course, assumed special importance as supplying the sulphur needed in the manufacture of gun powder and other explosives. But, in addition to this, these deposits have quite unexpectedly, during the past few months, been able to meet and solve a critical resource problem arising out of the submarine campaign. This problem concerned the raw materials of the large and very vital sulphuric acid industry, and arose from the fact that most of the several million tons of sulphuric acid used in this country was made from a sulphur-bearing mineral called pyrite, brought as ballast in quantity from large deposits in Spain. The restricted shipping conditions resulting from recent events, as a matter of course, seriously affected this source of supply, and since sulphuric acid is a product nearly as fundamental to industry as iron or coal, the situation bade fair to assume critical proportions. But it so happens that crude sulphur under emergency can also be used in making sulphuric acid, and accordingly the Gulf sulphur deposits have come forward to tide over the dearth of Spanish pyrite until the domestic supplies of pyrite, which are adequate but as yet only in part developed, can be brought up to a suitable measure of productivity.

"There are numerous lean deposits of sulphur in many of the western States, but these as yet have practically no effect upon the output of the country. It is therefore certain that without the Gulf deposits and the ingenious method of making them available, this country would have scarcely been able to meet successfully the war needs of sulphur and sulphuric acid; which goes to show, of course, the pressing necessity for widespread appreciation and understanding of the importance of proper development of the mineral industries of our nation."

No Overtime Allowed

United States Fuel Administrator Harry A. Garfield has telegraphed the following to all State Fuel Administrators:

"Any increase of the working time on other days of the week by industrial establishments for the purpose of making up the lost time brought about by the Fuel Administration's order prohibiting work on Mondays will be considered by the United States Fuel Administrator as an evasion of that order and a violation of its spirit."

Embargo Revoked

No embargo against shipments of bituminous coal from the lake docks to North and South Dakota will be put into effect, the United States Fuel Administration announced today.

The Fuel Administration, after investigation, decided such a step would be inadvisable at this time. Notice of the abandonment of the proposed plan was communicated today to State Fuel Administrators in the western states most affected.

Michigan Gets More Coal

Fuel conditions in Michigan have improved to such an extent that the Federal Fuel Administration of that State has revoked its order which imposed numerous restrictions as to the use of fuel throughout that State.

"You may rest assured that your efforts on behalf of the coal industry are appreciated."

So writes Mr. George M. Jones, head of the extensive Amherst coal interests of West Virginia, in inclosing to the American Mining Congress a special report of the car service of the Chesapeake & Ohio Railroad during December and January which shows that on account of this poor service 4,665,305 tons was lost to the country.

The report which has been compiled by the transportation committee of the Guyan Valley Coal Operators Association which is headed by John A. Kelly, of Omar, W. Va., as chairman, and of which Mr. Jones is a member, also points out much data of interest in relation to the service which the C. & O. Railroad has given to the 448 mines along its lines in the months in question.

Messrs. Kelly and Jones, and their associates, are fully aware of the representations made, from time to time, within the past three months to the office of the Director General of Railroads, by William M. Conrad, assistant secretary of the American Mining Congress looking toward general improvement of the car service, and have been assured that there is to be no let up until they get a normal car supply.

Out of 51 working days in the two months in question, the tonnage actually loaded amounted to 19.03 days, while the tonnage lost was equivalent to 26.92 days.

Promptly on receipt of the report it was filed at the offices of Assistant Director General of Railroads Chambers and its contents also brought to the attention of Mr. F. G. Minnick, manager of the Eastern Railroads Car Pool with headquarters at Pittsburgh.

Even though the car service condition along the Chesapeake & Ohio Railroad has improved since the months included in the special report filed, Secretary Callbreath, of the American Mining Congress, has determined that the representatives of the organization must continue their vigilance at the offices of the Car Service Commission, in this instance looking toward a normal car supply in the section.

Many representative members of the Congress have mines located along the Chesapeake & Ohio Railroad, and in the representations which have been made by the representatives of the Congress to the national railway officials special emphasis has been placed upon the requirements of these special operations and the actual losses these mines were sustaining by reason of the inadequate car supply.

AGREEMENT REACHED AS TO ZINC PRICES

Maximum of 12 Cents Fixed for Grade A— no Regulation of Lower Grades Attempted

After investigation by the Federal Trade Commission as to the costs of production, the President has approved an agreement made by the War Industries Board with the producers of Grade "A" zinc, fixing a maximum price of 12 cents per pound f. o. b. East St. Louis, subject to revision on June 1, 1918, and also an agreement made by the War Industries Board with the producers of sheet and plate zinc fixing a maximum price of 14 cents per pound for plate zinc f. o. b. plant and 15 cents per pound for sheet zinc f. o. b. plant, subject to the usual trade discounts.

The conditions are, first, that the producers of Grade "A" and of plate and sheet zinc will not reduce the wages now being paid; second, that they will sell to the Allies, to the public, and to the Government at the same prices; third, that they will take the necessary measures, under the direction of the War Industries Board, for the distribution of the zinc to prevent it from falling into the hands of speculators who might increase the price to the public, and, fourth, that they pledge themselves to exert every effort necessary to keep up the production of zinc so as to insure an adequate supply so long as the war lasts.

Among the zinc producers who conferred with the War Industries Board when the agreement was reached were:

A. P. Cobb, Edgar Palmer and W. S. Wardner of the New Jersey Zinc Co.; C. M. Loeb, the American Metal Co.; A. G. Mackenzie, Judge Mining & Smelting Co.; Otto Frahnknecht, Beer, Siondheimer & Co.; James A. Nelson, National Zinc Co.; W. H. Naugle, Electrolytic Zinc Co.; E. H. Wolff, Illinois Zinc Co.; H. H. Roseman, Hegeler Zinc Co.; S. Siegel, Eastern Zinc Refining Co. Inc.; S. S. Tuthill, American Spelter Corp.; J. H. Dietz, Ft. Smith Spelter Co.; William A. Cook, Matthiessen & Hegeler Zinc Co.; S. H. Lissberger, Trenton Smelting & Refining Co.; Oscar M. Hayman, Michael Hayman & Co.; J. R. Wettstein, United Lead Co.; Charles W. Baker and W. A. Ogg, American Zinc, Lead & Smelting Co.; N. H. Schwenk and T. Lewis Thomas, General Smelting Co.; E. W. Furst, Grasselli Chemical Co.; Arthur Day, United Zinc Smelting Co. and William Kenefick, Kenefick Zinc Co.

The copper producers' committee included R. L. Agassiz, Calumet & Hecla; C. F. Kelley, Anaconda Copper; Sidney Jennings, United States Smelting, Refining & Mining Co.; Joseph Clendenning, American Smelting & Refining Co. and L. Vogelstein, L. Vogelstein & Co.

POPE YEATMAN TAKES OVER NON-FERROUS MINERAL WORK FOR WAR INDUSTRIES BOARD

Pope Yeatman, consulting mining engineering, 111 Broadway, New York, who has just been placed in charge of the non-ferrous metals department of the raw materials division of the War Industries Board, succeeding Eugene V. Meyer, Jr., had been acting as consulting engineer to the Board ever since midsummer. In this capacity he has given the Board much technical advice, especially with regard to recommendations in the fixing of prices of non-ferrous metals.

Mr. Yeatman has been prominent in the mining field for many years, and is regarded as one of the highest authorities in the world on mining affairs and properties. For 10 years he was connected with the Guggenheim interests, giving up his work with these interests about two years ago to become associated with Edwin S. Berry, also a man of eminence in the mining field. Both were independent consulting mining engineers. Since the war began these gentlemen have dropped their practice entirely and now are giving up their offices at 111 Broadway. Mr. Berry has been commissioned a captain in charge of the Twenty-seventh Engineers, the mining regiment at Camp Meade, Md. Mr. Yeatman is taking his office staff with him to Washington to assist him in his government work.

Mr. Yeatman was born in St. Louis in 1861, and was graduated from Washington University, St. Louis, with degree of M.E. in 1883. Immediately he engaged in mining work in Mexico and in Colorado. In 1896 he went to South Africa and became mining engineer of the Consolidated Gold Fields of South Africa, Ltd., and later was made manager of the Robinson Deep Gold Mining Co., Johannesburg, South Africa. In 1899 Mr. Yeatman was made general manager of the Simmer & Jack Proprietary Gold Mining Co., Ltd., and from the same year to 1904 he was general manager and consulting engineer of the Randfontein Estates Gold Mining Co., Ltd., the Transvaal.

In 1905 he returned to the United States and began his ten-year connection with the Guggenheim interests. He also served as consulting engineer to the Nevada Consolidated Copper Co., the Cumberland Ely Copper Co., the Steptoe Valley Smelting & Mining Co., the Chile Exploration Co., Chile, and the Braden Co., also of Chile. Mr. Yeatman is a member of the American Institute of Mining Engineers, the American Society of Civil Engineers, the Institute of Mining and Metallurgy, London, and various other scientific bodies. His new address will be Room 813, Council of National Defense Building, Eighthteenth and D Streets, Washington.

Victor Rakowsky has returned to his home at Joplin, Mo., after spending several weeks in Washington, where he rendered splendid assistance to the mining industry of his district.



Harris & Ewing

EUGENE MEYER, JR.

Who is widely known among producers of metals. Until recently he had charge of non-ferrous metals for the War Industries Board.

ILLINOIS DISTRICTS ALLOWED INCREASE IN THEIR PRICES

Further price regulations and classification of coal mines have been announced by the United States Fuel Administration covering three mines in Illinois.

Selling prices fixed for the Moweaqua Coal Mining & Manufacturing Co., at Moweaqua, Christian County were as follows: Run of mine, 2.40; prepared sizes, \$2.65; slack or screenings, \$2.15.

Coal mined by the Assumption Coal Mining Company at Assumption, the same county, may be sold at the following prices: Run of mine, \$3.00; prepared sizes, \$4.55; slack or screenings, \$2.15. The Assumption is a new mine and the price for the first named mine was fixed to make it upon the same basis as that of the northern field in Illinois.

The new regulation as to operations of the Spoon River Colliery Company at Ellisville, Ill., provides for the following prices: Run of mine, \$2.65; prepared sizes, \$2.90; slack or screenings, \$2.40. The old prices at the Ellisville mine were \$2.40; \$2.65 and \$2.15, respectively.

The operators who have complied with the Washington wage agreement will be allowed

to add 45 cents per ton to the selling price named in the orders issued today.

SALT LAKE CITY MAN HOLDS IMPORTANT TREASURY POST

Mining men have every right to feel that they have a friend at court in matters which come under the jurisdiction of the Treasury Department. James H. Moyle, the newly appointed Assistant Secretary of the Treasury, is a man who has been in close contact with the mining industry throughout his life. He was born in Salt Lake City, where he obtained his early education in the public schools. Later he attended the State University of Utah, and then completed his education at the University of Michigan. He was graduated from the law school of the latter institution in 1885. Immediately thereafter he returned to Salt Lake City, where he began the practice of law. The year following the opening of his office he was elected county attorney. He was reelected to a second term. In 1888 he was elected to the Utah legislature. During the years following he served in numerous public capacities.

In 1904 Mr. Moyle was Democratic candidate for governor of his state. He lost with his party. In 1914 he was the candidate of the Democratic and Progressive parties of Utah for the United States Senate. In this race he all but unseated Reed Smoot, the incumbent. It was the good showing made by Mr. Moyle in this race, when it was thought that the position of Mr. Smoot was more than impregnable, that gave new hope to the Democratic party of Utah, and is conceded to have been an important factor in the state victory for that party.

For many years Mr. Moyle has been active in mining. At the present time he is president of the Cherry Creek Mining Company and vice-president of the Great Western Mining Company. He holds stock in a large number of metalliferous enterprises, and is also a director in the Old Capitol Petroleum Company. In Nevada he is interested in the Seven Troughs, the Cherry Creek and the Duck Creek districts, and in Utah is interested in the Park City, Bingham, Eureka, Big and Little Cottonwood and Ophir districts.

May Double Coal Output

Acting under the Alaskan Coal Leasing law, the Interior Department is endeavoring as rapidly as possible to develop the coal resources of that country, with the idea that whatever production is obtained soon will not only be of valuable aid to Alaska but will also be a factor in winning the war.

With a production of 50 000 tons in 1917 from the Matanuska field and the prospect that this output will be doubled this year, Secretary of the Interior Lane has announced that 19,000 acres of coal lands in the Nenana field are now ready for lease under the provisions of the leasing law.

WAR TRADE BOARD BUSY CARRYING OUT IMPORTANT WORK

The general policies followed by the War Trade Board and an outline of the Board's labors for 1917 in the control of export and import trade are indicated in the first annual report to the President, which the Board now makes public.

The mobilization of the economic arm of the United States and the effective use of trade restraints upon the Central Powers is here revealed in action. The language of the report shows a desire to proceed by agreement and negotiation with other countries, and to avoid even the appearance of coercion or retaliation in the Board's relation with neutrals.

With German traders and German comforters in neutral countries, however, there is no compromise indicated, but relentless isolation. The language of the report gives these intimations of policies and results:

"The activities of the Board are roughly divisible into three spheres, those relating to the control of exports, those relating to the control of imports, and those relating to enemy trade.

"The Board has sought, first, to conserve for ourselves, and for those associated with us in the war, such commodities as are required to maintain adequately the economic life of the several nations and to carry out their war programs. Other objects sought have been to prevent our commodities reaching the enemy, directly or indirectly, as by releasing like goods for the enemy, and to prevent commercial transactions between persons within the United States and an enemy, or an ally of the enemy.

"In undertaking to supply the food and other vital wants of neutral peoples, under carefully considered agreements, the Board has desired 'to prevent acute suffering in those countries, and to prevent them from falling under the economic power of the enemy.'

"The trade agreements the Board has regarded as being particularly important in the case of those European neutrals which are in trade relations with the enemy. Against these European neutrals, the report goes on to say, 'temporary embargoes have been enforced pending the securing of information indispensable to permit the Board to issue licenses.'

"An agreement has been concluded with Switzerland, assuring to the Swiss the periodic receipt of a stipulated grain ration and of other articles required to maintain the economic existence of the people of Switzerland.

"The Swiss government, on the other hand, gives satisfactory assurances against exportation to our enemies of imported commodities, and agrees to limit, in certain other respects, her trading with the enemy."

A still more definite achievement is discoverable in the Board's references to the northern European neutrals, where temporary embargoes are in force, pending the conclu-

sion of comprehensive agreements. The report continues:

"Their exports of foodstuffs to the Central Powers have declined from last year's corresponding exports in amounts estimated at from 65 to 85 per cent, depending on the neutral, and there has been a decrease in the export of many other important commodities.

"In November, 1917, we became party to Great Britain's tentative agreement with Norway, as a result of which action on our part 1,400,000 tons, dead weight, of Norwegian shipping were chartered into the service of the United States and Great Britain for the period of the war. Shortly following, temporary agreements were concluded with Holland and with Sweden. That with Holland gives us the use, for periods up to 90 days, of 450,000 tons, dead weight, of her shipping which had heretofore, for a long period, lain idle. The agreement with Sweden gives us the use for three months of tonnage estimated at 250,000 tons, dead weight, which had not heretofore been employed in services useful to us.

"Specific accomplishments of this character are, however, far from constituting a full measure of the results achieved by the War Trade Board. The elimination of enemy advantage from our trade and, to a considerable extent, from that of the world, the securing and conserving of commodities essential to ourselves and those associated with us in the war, the bringing of shipping generally into the services most useful to us, these results cannot be accurately stated or appraised at the present time, nor have they been accomplished by any single act or agreement."

The report explains the use of bunker coal licenses, as being intended to assure the utilization of America's restricted supply of fuel primarily by ships performing services useful to the United States and its associates in the war.

Abolition of calls at Halifax for ships between United States and European neutral ports, which is foreshadowed in a paragraph dealing with the endeavors of the Board to reduce the necessary control machinery over sailings, has since been accomplished. "Letters of Assurance," heretofore issued by the British Embassy, are also no longer required.

The extent of the business under the control of the Board must be gathered from the fact that the Bureau of Exports has handled approximately 425,000 applications for licenses to export, and was, at the date of the report, passing upon between four and five thousand applications per day.

The Bureau of Imports, of more recent formation, has received to January 1, 5,279 applications for licenses to import, upon which 4,719 licenses, covering commodities of an aggregate value of \$237,810,949, had actually been issued.

In order to guide merchants in their transactions with foreigners there was published in October an "enemy trading list" containing

the names of individuals and associations in neutral countries who were enemies or allies of enemies. This list is not a fixed and unchanged classification, but is subject to constant revision, and the Board has been able to remove from the original list many firms who have cleared themselves of the taint of enemy character.

The personnel of the War Trade Board amounts to 1,526, the report shows. The total financial obligation incurred up to December 31 is \$541,498.80. The Board is now housed in a number of detached buildings, but a new two-story building is nearing completion, which, with its 204,552 feet of floor space, will presently house all the bureaus at a great advantage in time and labor.

The membership of the War Trade Board at present is as follows: Vance C. McCormick, chairman, representative of the Secretary of State; Albert Strauss, representative of the Secretary of the Treasury; Alonzo E. Taylor, representative of the Secretary of Agriculture; Clarence M. Wooley, representative of the Secretary of Commerce; John Beaver White, representative of the Food Administrator; Frank C. Munson and Edwin F. Gay, representatives of the United States Shipping Board; Thomas L. Chadbourne, counsellor, and representative of the Secretary of State.

LACK OF CARS CAUSES MUCH LOSS OF TIME AT COAL MINES

The National Coal Association has issued a statement showing in detail loss in production due to car shortage, and pointing out the impossibility of bituminous coal producers meeting the country's requirements if they were not given cars to transport their product. The statement follows in part:

The entire country is still face to face with a serious coal shortage. Even a slight cold snap is all that is necessary to bring about a repetition of the suffering by the shortage of bituminous coal in January.

Production during the first two months of 1918, just ended, failed because of car shortage, to keep pace with production in January and February a year ago, by at least 3,000,000 tons. It fell more than 6,000,000 tons behind 1916 production for this period. The government's official figures place production in January and February, 1916 and 1917, at 91,782,609 tons and 88,100,193 tons, respectively.

Official figures are available for 1918 up to and including the week of February 9. They place production during this period at 57,771,946 tons. A liberal estimate of production from February 10 to 28 inclusive, based upon accurate reports to the National Coal Association, is 27,500,000 tons, which would bring the total 1918 production up to approximately 85,000,000 tons, the lowest in three years.

Car shortage and congestion has resulted

in a lost output of about 31,000,000 tons of bituminous coal, the country over, since January 1.

Reports to the National Coal Association show that in the five weeks from January 13 to February 16, inclusive, almost 5,000,000 tons were lost because of car shortage and congestion in six producing districts alone. These figures follow:

Central West Virginia field.....	1,285,075 tons
Somerset County, Pa.....	365,600 tons
Fifth and Ninth Districts of Missouri	478,230 tons
Eastern Ohio	889,200 tons
Indiana Coal Trade Bureau.....	629,093 tons
Pittsburgh Coal Producers Association	1,348,477 tons
Total	4,995,675 tons

Deplorable working conditions, due to car shortage, obtained in many of the largest producing fields. In the Central West Virginia field alone, during the seventeen working days ending February 25, an average of 6,312 men were idle every day. The total time lost during this short period was 107,297 days, or a total of 456 years for one man, measuring the average working year by 235 days, the highest recorded.

In the Guyan Valley field of West Virginia during the fifteen days ending February 25, the average number of idle men each day was 5,240 and the total time lost 78,594 days, a total of 334 years of one-man effort.

During this period thousands of open top coal cars were lying idle on some railroads, awaiting transportation to the mines. In the Philadelphia district alone, there were between 3,000 and 4,000 open top empties on hand, awaiting movement. This condition was caused partly by extremely severe weather conditions and partly by the urgent necessity for the transportation of grain which required preferential movement of thousands of empty box cars westward for grain loading.

Fertilizer Ingredients Under License

A presidential proclamation announced the intention to license the importation, manufacture, storage and distribution of the following necessities: fertilizers and fertilizer ingredients, including sulphuric acid, phosphate rock, acid phosphate, bones (raw, ground or steamed), bone black, basic slag, sodium nitrate, ammonia sulphate, cottonseed meal, slaughter house tankage, garbage tankage, castor pomace, fish scrap, base goods, cyanamid, calcium nitrate, dried blood, acidulated leather, hair, hoof meal, horn dust, ground leather, other unacidulated ammoniates, potash salts, cement dust, blast furnace dust, kelp ash, kelp char, dried kelp, wood ashes, cottonseed hull ashes, potassium nitrate, tobacco waste, mixed fertilizers, sulphur, and all other fertilizers and fertilizer ingredients.

WARREN DISTRICT HAS RECORD COPPER OUTPUT

Produces 15,000,000 Pounds of Copper in January—Douglas Smelters Have Huge Output—Other Arizona News

By J. E. CORRY

Bisbee, Ariz., February 2.—The Warren district will lead all others in Arizona in copper output for January, making from its own ores around 15,000,000 pounds. The figures will be close to the best in its history. From the smelters at Douglas there will probably be a record output of metal, notwithstanding some delays early in the month. February, although a short month, now bids fair to duplicate the high showing of January.

Except for the Clifton-Morconi district and Miami district shortage due to delayed recovery from strike effects, and to some losses in these and other districts due to supplies delayed by embargoes, January production in the state would have been around 83,000 pounds. As it is it will probably total upwards of 70,000,000 pounds. Operating forces in the different districts as now in employment measure up well in loyalty and appreciation of the larger obligations which have come upon them through the fact that the nation is at war, and are everywhere stretching a point bulking their daily work to assist the managements to give the Government all possible metal. The requirements of the Government for its own war work and that of its allies continue to absorb the bulk of the country's total copper output. Orders for future delivery to private consumers are made with the proviso that there will be delivery only in such part and at such times as the Government directs. Present deliveries to the trade are but a small part of that which it has asked and in greater part contracted for. That there will be any easing in demands for copper for war uses is not indicated. The miner is justified in feeling that for a long time to come two-thirds of every pound of ore he digs is going direct to the aid of those fighting the world's battle for freedom.

More cause appears to exist at the immediate time for fear that operations will be disturbed this year through supplies distribution than because of labor troubles, although enemies of the country are not lacking in one of the mining districts and after the German-Bolshevik fashion will continue busy with efforts to make disaffection. The supplies distribution factor, however, although a matter for some delays and much worry during a number of months, is probably yet to reach the real point of severity in the Southwest. Fuel oil has become increasingly difficult of obtaining in the quantities that it would be desirable to have on hand, while timber supplies have been de-

cidedly checked. Steel and general supplies have not been hastened in transit by the various embargoes and government orders to this time. Purchasing agents are asking how it can be expected that congestion will be relieved and deliveries facilitated when they find themselves in receipt of notifications that embargoes have been raised and shipments made in bulk of orders that under normal conditions of railway operation would have been distributed over a period of a month or more. With all these accumulated shipments at once on the carriers it is understandable how congestion occurs en route, but not how it is alleviated. Representatives of purchasing departments of Arizona mining companies have been almost continuously on the road during the last several months trying to straighten out tangles and get delivery of urgently needed supplies, and everywhere they have met with others on like missions. Many a night's sleep has been lost and is being lost in the effort to keep the mines going.

The fuel oil situation gives occasion for immediate concern. It is hoped that with the active taking over of this division by Administrator Mark Requa of the Fuel Administration he will find a way to ease the present plight of the Arizona copper producers, who as a whole have been going on very scanty supplies from day to day. Their storage capacity is not at this time in use to the extent of a third and supplies on hand cover the needs of days only. Shutting down of power plants because of lack of fuel for the copper industry in the state would, of course, not mean the loss of a single day's production. Shutting down by reason of lack of fuel involves just as much loss of time and money as shutting down by cause of strike. The same output of ore, which cannot be made up, is lost, and there is most of the other trouble attending abrupt closing down to contend with. The Fuel Administrator is a western man and doubtless familiar with copper country conditions, which is a fortunate fact. It may save the copper districts from experiencing the hardship imposed upon eastern industrial centers by fuelless days. If Mr. Requa holds an adequate number of tank cars at the service of the mining districts and keeps them moving, there will be no trouble, for there is no shortage of oil on the coast. The trouble has been in a shortage of tank cars. Building of more tank cars is an urgent need before any of those now available to Arizona territory are released in response to pressure for more service in the east—always provided the copper is wanted, and there does not seem room for doubt but that it is most urgently required by the Government.

The supply of labor in the Warren district and in all other districts of the state is at this time fairly easy. Of certain classes there is an excess. Shortage has come about among mechanical forces, however, which is yet to be made up satisfactorily and for the making

up of which the outlook is not bright. Shipyards calls for men at higher wages on government work than the copper producers can possibly pay on a 23½ cent copper market is mainly responsible for the shortage of mechanics at the mines and their plants. These men, skilled carpenters and mechanics, absolutely essential in the mining industry to get and maintain maximum operations, find quick employment in the shipyards and at the higher pay like the work better. There is no chance of getting them back except that the Government realizes that it is competing unfairly in wages with the copper industry and carries out the talked of plan of controlling the distribution of labor. If this is not done, the only other way it can adjust the situation will be by increasing the price of copper to such a figure as will enable the mines to pay as much as the shipyards.

Development enterprises in the state, except such as were abundantly financed or provided for in advance of the war, are curtailing their operations or have closed down. More of the small producers dependent upon the earnings of their shipments are closing down each week, finding it impossible to pay high labor costs, high material costs and high war taxes and keep going. More will follow, because 23½ cents does not allow a reasonable operating margin, or at least an attractive one, for even the big producer equipped with all the facilities for gaining economy in the making of his output. For new properties and small developed mines in need of money, discouragement is the present outstanding feature. This is particularly true in the face of the forthcoming Liberty Loan, which will be probably the biggest the Government has asked the public to finance. Those who ordinarily lead in financing new enterprises are engaged in converting their securities holdings into cash in order to be able to meet the call the Government is going to make upon them this time to stand in readiness to take large amounts of the new loan. The securities being sold are going into the hands of the investment public, the small investors, and with the Liberty Loan subscriptions they will make will load them up for a considerable time to come. Only properties which can show high merit and strong grounds for belief that they will, with further investment, speedily get into profitable production can expect to get new investment or additional funds under the existing conditions.

Operating against loose, careless, random investment in mines in a stronger measure probably than has any other single thing in the past is the fact that the income tax operation is showing up that a great deal of what seemed on the surface to represent profit from mining in the past was not in reality profit, but simply return of money invested, just as the profit of the merchant is not the whole of the \$10,000 he may have received for his stock in six months, but only that part of the \$10,000 which may be

left after he has paid for the stock, and deducted his rent, insurance, wages, etc. Brokerage houses and enthusiastic financial writers have had a great deal to do with bringing about a false impression among investors as well as mine workers as to the huge earnings of mines, because they have presented only the receipts side and not the disbursements. Their expressions have come out mostly in response to inquiries dealing only with the profits side, that being the main interest of the public, and again they have not had clear statements to deal with. Expenses have been distributed in so many ways that the hasty observer has not considered, as worth nothing at all, depletion of resources, depreciation of equipment, taxes and the like being included among the overlooked things, although they make a huge total, that the writer and in not a few instances, the promoter have not really been to blame. The ultimate outcome will undoubtedly be of great value to legitimate mining through weeding out many of the abuses of public confidence and bringing the business to as high a plane of investment and confidence as prevails in other established industries. Meantime some worth-while properties may suffer neglect—some undoubtedly are. It is unfortunate that in this period of requirements for national protection of all the metal that can be developed and mined that there is not at the elbow of the mining industry to give it aid some such organization as the farmers have the use of in getting government loans.

The Globe district stands first in new development at the immediate time, Iron Cap continuing to prove up in its recent big find on its lower levels. Arizona Commercial and others in the district are encouraged as their lower levels and in exploration under way are finding justification for such feeling. In the Warren district Denn is continuing with pursuit of its stringers and other showings with attendant results that are altogether as satisfactory as the amount of work thus far done calls for. Delayed supplies, caused by embargoes have prevented getting down on the deeper levels of the mine, but this will soon be overcome. Among the smaller properties in the district the Boris has recently made some very encouraging development while Wolverine is continuing to look exceptionally good for the making of an important ore body in its Broken Promise area. In the Verde district at Jerome the more advanced developing properties are going ahead with unflagging energy and the bet that this district will make two or more new mines of importance within the year is still considered safe.

In the share markets, New Cornelia has been the center of a great deal of interest and commendation in the Arizona list. The property is making a performance that exceeds the best things publicity predicted for it by its sponsors in the constructive period. Its attractiveness as an investment is con-

stantly appearing stronger. Ray Hercules, the next new producer booked for the state, has been the subject of much praise lately and is indicated to be in excellent way to justify all of it a little later. Every effort is now being bent at this property to get it into production by the middle of the year. Arizona Commercial and Iron Cap have also featured strongly in the markets recently. Others of the Arizona dividend earners have shared with the general industrial market in stiffening of prices. The impression is that advances will be checked with announcement expected this month of the terms and time of the new Liberty Loan flotation. It will be only natural if during the period of the loan subscription and for a while thereafter, the shares fall out of attention and to lower levels. Although the merit of the Arizona dividend earning coppers justifies a different course, it will be strange if they do not act to lower prices. For investment purposes they are bargains at this time, and have been ever since 1915.

ADVISES AGAINST CLOSING DOWN SO-CALLED NON-ESSENTIAL INDUSTRIES

Interesting personal conclusions of George N. Peek, the industrial representative of the War Industries Board, are as follows:

"The discussion of the 'limitation of non-essential industries' started with a very unfortunate misuse of words. The idea, as exploited in the newspapers, that the Government intended to cut off 'non-essential' industries, had in it possibilities for disaster.

"All industries are closely inter-related. For instance, certain so-called 'non-essentials' may be sent to South America to pay for commodities absolutely needed for essential products, and no large class can be arbitrarily cut off without seriously affecting general business conditions in the country. Certainly no industry is 'non-essential' to the workmen and capital employed therein, and when one considers that over ten million people and thirty billion dollars of capital are employed by 'non-war' industries, the need of caution in dealing with this problem is manifest.

"On the other hand, our industrial equipment is limited. We do not have materials, machinery, transportation, labor, or capital sufficient for fighting the great war and for normal business at the same time. The war must be prosecuted to the utmost, and business must shrink to provide the necessary equipment with the least possible injury to the business of the country.

"The first consideration of the nation and all of its industries must be to contribute the utmost toward winning the war, and to that end business must, where necessary, be diverted from its established channels into new channels; or if absolutely necessary, the flow must, during the war, be entirely stopped in order to provide adequate labor and material

for war needs. It does not, however, follow that there will be *less business than usual*, but rather *more unusual business*.

"If the so-called 'non-essential' industries are 'cut off' many of them would be ruined and others permanently crippled.

"It would seem to be the immediate duty of the War Industries Board—

"1. To list, by classes or otherwise, and to define those industries whose operation as a war measure are of *exceptional importance*, classifying them, as far as practicable, in the order of their relative urgency, measured by the extent of their contribution, directly or indirectly, toward winning the war.

"2. To consider carefully, and, after due notice and hearings, to determine what are the less important industries, measured by the extent of their contribution, directly or indirectly, toward winning the war.

"3. To promulgate such findings and to prepare, present, and, if practicable, enforce such definite and concrete plan or plans as will result in—

"(a) Stimulating the operation of industries of exceptional importance.

"(b) Curtailing the operation of the less important industries or, in the alternative, encouraging such industries so to change their operations as to produce war needs.

"(c) Conserving the supply of essential raw materials as reserves to be drawn upon to meet the war requirements."

WHITE HOUSE COAL SHOVELS TAGGED BY SCHOOL CHILDREN

President Wilson's coal shovel was tagged in front of the Executive Building of the White House, thus setting the mark for "Tag Day" which was observed throughout the United States. The coal shovels of governors of States, mayors of municipalities and other prominent individuals were tagged by the school children everywhere.

The two White House shovels were tagged by William Edward Furey, patrol leader of the Boy Scouts, and by Miss Helen Margaret Tew, each of Washington. These children were escorted by a company of boy scouts, their school friends and a small body of teachers. Secretary to the President, Joseph Tumulty, United States Fuel Administrator Harry A. Garfield, P. B. Noyes, Director of Conservation of the Fuel Administration were present.

Erecting Mill on Graphite Mine

The Crystalline Flake Graphite Co., at Ashland, Ala., is erecting a mill to handle its graphite ores. Operation is expected to begin by March 15. Part of the equipment has been ordered from The Denver Quartz Mill & Crusher Co., Denver, Colo., and includes that company's No. 2 mill. R. E. Meade & Co., engineers, Ashland, Ala., have charge of construction.

FUEL FOR WINDOW GLASS MAKING IS CUT DOWN

Garfield Issues First Order Curtailing Fuel for Specific Industry—Window Glass Output to be Cut 50 Per Cent

After nearly three months of investigation and discussion with the interests involved, Fuel Administrator Harry A. Garfield recently issued an order limiting the use of fuel for the production of common window glass to 50 per cent of the amount manufactured in 1917.

A survey of the field indicated that not more than five million boxes of window glass would be used in 1918 and that competitive conditions were likely to result in an over-manufacture of this material by at least two or three million boxes, probably more. Each manufacturer was willing in the general interest to reduce the output to the extent mentioned, if assured that his competitors would be bound by the same restrictions.

Representatives of the workmen have taken part in the discussion and have agreed to make their part of the sacrifice. The order was delayed until this patriotic agreement had been made practically 100 per cent complete.

The reduction in output over last year's operation provided by the order, means a saving of 500,000 tons of coal and the removal of at least 18,000 carloads of merchandise freight from the railroads.

The United States Fuel Administration takes the position that in the present condition of shortage no fuel must be used to manufacture any greater quantity of finished products than will be needed this year; that factories cannot be permitted fuel, transportation, and labor to manufacture a surplus of products to be piled up for sale next year.

The Fuel Administration is carrying on a series of conferences covering all industries which use large quantities of fuel, with a view to learning the requirements of each line during 1918. The industries themselves are playing a leading part in these discussions. The aim of the Fuel Administration is to arrive at a percentage of the production which, under the circumstances, will be satisfactory to the manufacturers and their workmen, but which will not represent a consumption of fuel for the manufacture of supplies not needed for the current year.

It is through this system of scientific limitation, together with large economy in the methods of using fuel, that the Fuel Administration expects to supplement the production of coal this year. It is hoped, as the railroads strengthen their facilities, that it will be possible to mine and transport a larger quantity of coal this year than last, but it is through these methods of reducing consumption that a repetition of this year's shortage is to be absolutely prevented.

O'DONNELL TO AID REQUA IN STIMULATING OIL OUTPUT

The appointment of T. A. O'Donnell, of Los Angeles, to take charge of the oil production problem, has been announced by the Oil Division of the United States Fuel Administration. Mr. O'Donnell thus becomes one of the chief aids of Mark L. Requa, head of the Oil Division of the United States Fuel Administration. For many years he has figured prominently in the development of western oil properties, and through a very intimate knowledge of the oil fields, he will seek at once to establish a relationship between the Government and the producers of oil that will help materially in winning the war by assuring ample production.

Director Requa, announcing Mr. O'Donnell's appointment, stated he confidently expects the hearty cooperation of the industry in the big problems ahead, to the end that "a thoroughly satisfactory and common-sense policy may be finally adopted."

"I am expecting that the oil industry will, to a great degree, govern itself wisely and conservatively, and that it will recognize the necessity of maintaining fair and reasonable prices and cooperating to the fullest extent in supplying most efficiently the products of petroleum needed to meet the requirements of our own Army and Navy and of the Allies," Mr. Requa said.

Mr. Requa emphasized the point that the obligation of the oil division is to assist the industry in accomplishing ends that cannot be attained by the industry alone and to encourage, stimulate and harmonize all branches; but that this conception under no circumstances involved the taking over of trade operations or in any way embarrassing such operations so long as they are wisely, conservatively and patriotically administered. Mr. Requa in a personal appeal to all of the oil producers of the country today expressed the hope that close and harmonious relations between the producers in the fields and the Oil Division be established and that they will work out constructive proposals which can be put into actual operation.

VOLUNTEER OFFICIALS TO MAKE UP OIL DIVISION

As far as is possible the official organization of the Oil Division of the United States Fuel Administration will be made up of volunteers. The volunteer service has been a feature of both the Food and Fuel Administrations and M. L. Requa, director of the Oil Division, announced that his force would largely be made up in the same way. Mr. Requa stated that he hopes to be able to equip the oil division, practically in its entirety, with volunteer officials.



Harris & Ewing

W. S. BLAUVELT

Head of the Coke Division of the United States Fuel Administration

W. S. Blauvelt was connected with the Semet-Solvay Company, a large by-product oven operator, for fifteen years. He had charge of their by-product coke plant at Detroit. He left the Semet-Solvay Company in the summer of 1915 and, with Mr. Steere and several others, formed the Steere Engineering Company, with which Company Mr. Blauvelt acted as consulting engineer. He is an authority on natural and producer gas, having spent a good deal of his time in this field. He is also an authority on the by-product coke business.

According to a statement issued by the Bisbee Daily Review, Arizona's copper production for 1917 brought \$200,000,000. Partial figures of disbursements of the copper producers include \$62,000,000 paid out in wages; \$21,000,000 Federal tax; \$7,000,000 county and State tax; \$24,000,000 increase in cost of supplies over 1916; \$44,000,000 in dividends, making a total of \$158,000,000. This amount includes nothing for fuel, timber, steel, new equipment, etc., except the advanced cost over 1916, and nothing for depreciation of equipment and exhaustion of ore bodies, no allowance for interest charges, salaries, transportation charges, electrolytic treatment of copper, marketing expenses, and other smaller items of expense.

TIN IMPORTS INCREASE DESPITE MANY DIFFICULTIES

Imports of tin into the United States during the calendar year 1917 showed a slight increase notwithstanding the difficulties experienced by American importers in getting foreign export licenses and the fact that the importation of this metal is controlled by our own government.

Including the approximate content of imported ore, but not including Alaskan ore, the total imports of tin in 1917 amounted to 68,996 long tons, against 66,624 tons in 1916, according to figures made public by the Bureau of Foreign and Domestic Commerce, Department of Commerce.

Of our 1916 imports, 49,415 tons, or 74 per cent of the total, came from England and the Straits Settlements, whereas in 1917 only 41,463 tons, or 60 per cent, came from these two sources. Imports from the Dutch East Indies increased to 14,148 tons, or 20 per cent of the total, Australia, China, and Bolivia supplying most of the remaining 20 per cent.

A large part of our Straits tin imports came by way of England as usual, but it is expected that the present year will witness an increase in direct shipments.

FIRST POTASH PERMITS ISSUED UNDER NEW LAW

Notwithstanding the fact that large deposits of potash exist in this country, before the war practically the world's supply of potash came from Germany, which has immense deposits. Potash deposits on public lands have not been heretofore developed because all such lands known to contain potash deposits have been withdrawn from acquisition.

Under the recent law permits may be issued for the exploration for potash on tracts of land not to exceed 2,560 acres. These permits run for two years. If potash of commercial quality and quantity is discovered, the permittee will be given a patent for one-fourth the land covered by his permit, and the remainder may be leased by the Government to others. Secretary of the Interior Lane has issued the first prospecting permit under this law, covering 2,560 acres of alkaline marsh land in the desert region of Inyo County, California, and the permittee expects to begin explorations by sinking wells. Other permits will be issued in the near future.

To Report on Alabama Situation

Rembrandt Peale and John P. White, representatives of operators and labor in the Fuel Administration, have gone to Birmingham, Ala., to investigate and report on the differences which have arisen between operators and miners in some of the Alabama mines:

INTERDEPARTMENTAL BOARD ON MINERALS IS ORGANIZED

"In view of the large official use now being made of all available information regarding raw materials essential to the Government, it has been found highly desirable to systematize the handling of official inquiries regarding minerals and mineral products. The subject of the war minerals has required a notable increase in the personnel of the bureaus that had in the past been directly concerned in mineral investigations, and a simple and informal, though effective, coordination of the activities of all engaged and interested in these investigations has been undertaken. To this end, a representative committee for conference has been named, the purpose of which is in no wise to curtail or even to supplement activities already existent, but rather to make the equipment and personnel better known and more readily available to other organizations and the increased activities most effective in operation. This body of representatives from the bureaus, boards, and departments interested will serve principally as a clearing-house to secure the prompt preparation and transmittal of data from each authoritative source without duplication of effort."

The above statement, by Dr. George Otis Smith, Director of the United States Geological Survey, tells of a step which all are agreed will be most helpful in preventing duplication of work in Washington.

At a meeting on February 8, at which representatives of the War Industries, War Trade, and Shipping boards and the Geological Survey and Bureau of Mines were present an informal organization was effected, with George Otis Smith as temporary chairman and A. G. White as temporary secretary, and the following representatives were announced for membership on the proposed committee: S. H. Salomon, representing the War Trade Board; J. E. Spurr, representing the Shipping Board; E. S. Bastin, representing the Geological Survey, and A. G. White, representing the Bureau of Mines.

It was voted to invite representatives from other branches of the departmental service, to meet on February 14, for the purpose of effecting the permanent organization. This was done, and resulted in the formation of the Joint Information Board on Minerals and Their Derivatives. The board is comprised as follows:

A. B. Adams, Treasury Department, Internal Revenue; H. R. Aldrich, War Industries Board, Division of Statistics; Edson S. Bastin (secretary of board), Department of Interior, United States Geological Survey; Frederick W. Brown, Department of Agriculture, Bureau of Soils; R. M. Chapin, Department of Agriculture, Bureau of Animal Industry; Melvin T. Copeland, War Industries Board, Commercial Economy Board; Thomas Cox, United States Fuel Administration, Oil Division; Frederick P. Dewey, Treasury Department, Bureau of the Mint; H. A.

Havens, Department of State, Consular Service; John K. Haywood, Department of Agriculture, chairman, Federal Insecticide and Fungicide Board; Commander R. S. Holmes, Navy Department, Bureau of Ordnance; C. C. Houghton, Federal Trade Commission, phone Main 8940, branch 45; Henry Hubbard, Department of Commerce, Bureau of Standards; Lincoln Hutchinson, War Trade Board, Bureau of Imports; Karl F. Kellerman, Department of Agriculture, Bureau of Plant Industry; Lieut. Col. R. P. Lamont, War Department, Ordnance Department, United States Army, Sixth and B Streets Northwest; C. K. Leith, United States Shipping Board, Room 4228, Interior Department Building; C. E. Leshner, United States Fuel Administration, Statistical Department, Coal Division; Charles W. Merrill, United States Food Administration, Division of Chemicals; Harvey S. Mudd, Department of Interior, Bureau of Mines; Lieut. Comdr. N. W. Pickering, Navy Department, Bureau of Ordnance, Interior Department Building; G. F. Richardson, Office of Director General of Railroads, Car Service Division, Interstate Commerce Building; Guy C. Riddell, United States Tariff Commission; S. H. Salomon, War Trade Board, Bureau of Research; C. D. Snow, Department of Commerce, Bureau of Foreign and Domestic Commerce; J. E. Spurr, United States Shipping Board, Room 4228, Interior Department Building; L. L. Summers, War Industries Board, Division of Raw Materials; F. G. Tryon, War Industries Board, Division of Statistics; W. W. Skinner, Department of Agriculture, Bureau of Chemistry, and Pope Yeatman (chairman of board), War Industries Board, Division of Raw Materials.

NO ACTION ON MINERAL CONTROL BILL EXPECTED SOON

No early action on any measure providing for the control of mineral products is expected. A bill, carrying an appropriation of \$50,000,000, intended "to provide further for the national security and defense by encouraging the production, conserving the supply, and controlling the distribution of those ores, metals, and minerals which have formerly been largely imported, or of which there is or may be an inadequate supply," has been drafted but is being altered by various officials. It will be some time before the bill is even introduced. Before any action is taken by Congress ample opportunity to be heard will be granted all interests affected.

Makes Significant Statement

Senator Thomas, of Colorado, made the following significant statement on the floor of the Senate recently:

"If I am correctly informed—and I think I am—a very large proportion of the prerogatives of the Secretary of the Interior has been transferred to other departments in practice."

THE MINING CONGRESS JOURNAL

PUBLISHED EACH MONTH BY
THE AMERICAN MINING CONGRESS,
Munsey Building, Washington, D. C.

OFFICERS:

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Subscription Rate, per year..... \$2.00
Single Copies..... .20

Entered as Second Class Matter January 30, 1915,
at the Postoffice at Washington, D. C.

MARCH, 1918

DISTRICT REPRESENTATIVES OF FUEL ADMINISTRATION ARE NAMED

District representatives to serve in principal coal producing regions, are charged with the duty of arranging with shippers and mines for full reports relating to production, working time, car supply, shipments and free coal. Administrator Garfield has directed all representatives that full reports bearing upon these matters must be sent to Washington at the end of each week. The district representatives are charged with the duty of allotting emergency orders from the Fuel Administrator among the operators in their respective fields.

Fuel Administrator Garfield has announced appointments as follows: C. E. Reed, of Louisville, Ky., as district representative for

the coal fields in western Kentucky; H. N. Taylor, of Kansas City, as district representative for the coal fields of Arkansas, Iowa, Kansas, Missouri, Oklahoma and Texas; John G. Brydon, Somerset County, Pa., on or tributary to the D. & O.; G. D. Kilgore, at Norton, Va., will be district representative for Dickinson, Lee and Wise Counties, Va., and Russell County from Coulwood, west; R. A. Hord, of Lexington, Ky., for the Hazard coal field in Perry, Breathitt and Lee Counties in Kentucky; F. B. Reimann, of Butler, Pa., for the coal fields of Pennsylvania in Armstrong, Butler, Clarion and Mercer Counties, the northeastern sections of Lawrence County, and the extreme southwestern corner of Indiana County along the Pennsylvania Railroad; R. W. Gardiner, of Pittsburgh, Pa., for the coal fields of Pennsylvania in Allegheny, Greene and Washington Counties, Westmoreland County west of and along the Youghiogheny River, and the extreme northwestern corner of Fayette County; W. R. J. Zimmerman, of Charleston, W. Va., for the New River coal field in southern West Virginia, comprising operations on the Chesapeake & Ohio Railway south and east of Hawks Nest, and all operations on the Virginian Railroad; E. J. Howe, at Bluefield, for the Tug River and Pocahontas coal fields in southern West Virginia and the Clinch Valley and Virginia anthracite fields in Virginia, comprising all operations on or tributary to the Norfolk and Western Railway in West Virginia east of Panther, and embracing Mercer County and parts of McDowell and Wyoming Counties, W. Va., and Tazewell, Montgomery, Pulaski and Russell (east of Coulwood on the N. & W.) Counties, Va.; C. M. Roebrig, of Ashland, Ky., for the counties of Boyd, Carter, Floyd, Johnson, Letcher; for the county of Pike except operations on the Norfolk & Western Railway; J. P. Cameron, of Altoona, Pa., for the coal fields of central Pennsylvania. Three assistant district representatives under Mr. Cameron have been named. They are Messrs. John Lloyd, Jr., Harry B. Scott and Samuel A. Rinn. Producing territory has been assigned to these assistants as follows: John Lloyd, Jr., Altoona, Pa.—Huntington and Bedford Counties; operations in Somerset County served by the Pennsylvania Railroad, and operations of the Pennsylvania Railroad between Crosson and Blairsville as well as the South Fork Division and the Indiana branch. Harry B. Scott, Phillipsburg, Pa.—Center County, Cambria County (except that part listed above), eastern part of Indiana County and all operations in Greenfield County tributary to the New York Central and Pennsylvania Railroads. Samuel A. Rinn, Punxsutawney, Pa.—Operations on the Buffalo, Rochester & Pittsburgh railroad in the western half of Indiana County; operations in Armstrong County on and tributary to the Buffalo, Rochester & Pittsburgh and the Buffalo & Susquehanna Railroads.

OREGON'S MINERAL OUTPUT FALLS OFF DECIDEDLY

A preliminary estimate of the production of metals from Oregon mines in 1917, compiled by Charles G. Yale, of the San Francisco office of the United States Geological Survey, shows a material decrease from that of 1916. The output of gold in 1916 was \$1,902,149, and the estimated output in 1917 is \$1,466,419, a decrease of \$435,760. The output of silver in 1916 was 231,342 ounces, valued at \$152,223, and the estimated output in 1917 is 115,697 ounces, a decrease of 115,645 ounces in quantity and of \$58,046 in value. The output of copper in 1916 was 3,501,886 pounds, valued at \$881,144, and the estimated output in 1917 is 1,508,639 pounds, valued at \$410,349, a decrease of 1,993,247 pounds in quantity and of \$470,795 in value. A small quantity of lead was produced in 1916, but no production of this metal has been reported for 1917.

There are about 100 productive mines in Oregon, and although two-thirds of them are placer mines, the larger part of the output of gold comes from the deep mines, and, of course, virtually all the output of the other metals. There were no important discoveries in any of the mining districts of Oregon in 1917, and no great increase in the output of any of the more productive properties. The entire output of ore from all the deep mines combined does not exceed 160,000 tons. Most of the placer mines are worked by the hydraulic system, but the three dredges now in use produce far more gold than all the other placer operations combined. The largest output of gold and other metals in 1917 came, as usual, from Baker county, which produces annually about 90 per cent of all the gold mined in the State. Josephine county is next in production.

To Build New Powder Plants

The War Department has announced the completion of plans and contracts for the construction of two smokeless powder plants, each to cost approximately \$50,000,000.

These plants will be located at Charleston, W. Va., and Nashville, Tenn. Work has already begun on the Charleston plant, which will be constructed by the Government under contract with the Thompson-Starrett Company, of New York.

A contract has been signed with the DuPont Powder Company for the construction of the plant at Nashville. The construction work will be done by the DuPont Engineering Company, a subsidiary of the DuPont Powder Company.

The estimated capacity of each plant is 500,000 pounds of powder per day.

NEW PRICE SCHEDULE ALLOWED IN VIRGINIAS

An order containing further classifications of bituminous coal mines in Virginia and West Virginia, on the lines laid down by the President in fixing prices of coal, has been issued. The order affects coal mined in Kenova and Thacker fields, located in Mingo County, the extreme southern part of Wayne County, the extreme northwestern part of McDowell County, West Virginia and the extreme northern part of Buchanan County, Virginia.

The new price fixed for those fields are: Run of mine, \$2.40; prepared sizes, \$2.65; screenings or slack, \$2.15.

The prices fixed in the President's original price proclamation were: Run of mine, \$2.00; prepared sizes, \$2.25; screenings or slack, \$1.75. The new prices are effective February 7, at 7 a. m.

Operators who have complied with the terms of the Washington wage agreement may charge an additional 45 cents per ton above the new selling prices announced today.

Plan to Utilize Coal Products

One of the scientific bureaus of the Government has analyzed the coal situation from an entirely new viewpoint, and offers a means whereby the householder may eventually obtain his domestic fuel supply at a fraction of what he now pays. How this may be accomplished is expressed in nontechnical language, in a short pamphlet entitled, "Coal: The Resource and its Full Utilization," by Chester G. Gilbert and Joseph E. Pogue, which has just been issued by the Division of Mineral Technology of the United States National Museum, under the direction of the Smithsonian Institution.

The gist of the plan lies in the fact that ordinary soft coal, instead of furnishing heat alone, can be made to yield five products—artificial anthracite, gas, ammonia, benzol and coal tar—all of commercial value. It is proposed that the municipal gas-plant operated as a public utility, be enlarged so as to treat all the coal ordinarily used by the community, with the production of the five products mentioned. By thus centralizing the utilization of coal and employing all the values contained in it, such great economy may be effected as to yield a really cheap domestic fuel, the authors state.

Complaints Being Investigated

Investigation is being made of complaints which have been received by the United States Fuel Administration that operators in some of the bituminous coal fields are charging an excessive price for coal under contracts made before August 21, 1917, embodying prices below those fixed by the President, which contained no sliding scale of labor charges.

Stocks of Bromine Low

Some of the asphyxiating gases that are used so extensively in the European war contain bromine, a heavy brown liquid which gives off a vapor that attacks the nose and throat and has a very harmful effect on the eyes. This same liquid is made into salts that are widely used in peaceful pursuits, as bromide of silver used in photography, and bromide of potassium used in medicine for treating nervous diseases. Bromine was extracted from bittern at eleven plants in Michigan, Ohio and West Virginia in 1917. According to R. W. Stone, of the United States Geological Survey, Department of the Interior, about 903,860 pounds of bromine was produced and sold at these plants in 1917, an increase of 215,600 pounds from the production in 1916. During 1917 there has been a large decrease in price of bulk bromine, which was quoted in the New York wholesale market at \$1.40 to \$1.50 a pound in January, 1917, but is now quoted around 60 cents. The present price, however, is 100 per cent higher than the price which prevailed in 1913, when bromine sold for 25 to 35 cents a pound.

The stocks of bromine on hand at the producing plants December 15, 1917, were very low, amounting only to about 7,000 pounds. The productive capacity of the plants, however, is so great that much more bromine could easily be made, for the eleven plants that were in operation in 1917 and one plant that was idle could produce more than 975,000 pounds of bromine in a year, and could probably make a million pounds by working full time. Some of the plants that were in operation in 1917 were idle more than half the year.

At a recent meeting of the Board of Directors of the Worthington Pump and Machinery Corporation, C. P. Coleman, was elected president.

Weight of Coal

A bushel of bituminous coal is considered in most coal mining states to weigh 80 pounds. Bituminous coal ranges in weight, according to kind, from 80 to 85 pounds per cubic foot. Roughly speaking, therefore, 1 cubic foot of coal in the solid would produce 1 bushel of broken coal.

The standard ton in this country for selling bituminous coal is 2,000 pounds. There are, therefore, 25 bushels in a ton. It is not usual to use the bushel as a method of measurement.

Rushing Coal to New England

Sixty ships are now engaged in carrying coal for the relief of New England and shipments of bituminous coal for factories in that territory are being largely increased, according to reports to the United States Fuel Administration.

Tug River Prices

Further classifications of bituminous coal mines have been announced by the United States Fuel Administration for the Tug River, West Virginia district, and the Clinch Valley No. 1 or "Upper Clinch" districts in Virginia.

The Tug River prices fixed are effective in mining operations on the Norfolk & Western Railroad west of Welch to Panther, including branches except Newhall, Berwind, Canebrake and Hartwell.

The new prices are: Run of mine, \$2.40; prepared sizes, \$2.65; slack screenings, \$2.15. The old prices were: Run of mine, \$2.00; prepared sizes, \$2.25; slack or screenings, \$1.75.

The "Upper Clinch" prices as fixed are: Run of mine, \$2.50; prepared sizes, \$2.75; slack or screenings, \$2.25. The former prices in this field were the same as the old prices in the Tug River field. The order as to the "Upper Clinch" district covers operations on the Norfolk & Western, Hockman to Finney inclusive.

Operators who complied with the Washington wage agreement will be permitted to add 45 cents to the mine prices.

State Fuel Administrators Meet

State Fuel Administrators from the eastern States met with United States Fuel Administrator Garfield recently in a regional conference. The conference began the consideration of proposed plans for handling the nation's coal supply in the next coal year, which begins April 1.

Those present included: J. C. Harlan, of Maine; Richard H. Jenkinson, of New Jersey; William Potter, of Pennsylvania; Ferdinand A. Meyer, of Maryland; Geo. H. Holmes, of Rhode Island; H. J. M. Jones, of Vermont; Chas. H. Ten Weeges, of Delaware; E. F. Calladay, of the District of Columbia; Clark Williams, representing Albert H. Wiggins, of New York; and Reeve Schley, of New York; John Tinney, representing Chas. M. Floyd, of New Hampshire; and William K. Prudden, of Michigan.

RIGHTS OF LOCATOR

The posting of a notice on the public land and claiming a certain designated portion thereof as a mining claim, recording the notice and doing so-called assessment work without a discovery of mineral, is a speculative proceeding conferring no rights upon the pretended locator as against the government, although so long as such pretended locator remains in possession and with due diligence protects work toward discovery he may be entitled to protection against all forms of forcible, surreptitious or clandestine entry and intrusion upon such possession by a stranger.

United States vs. Midway Northern Oil Co., 232 Federal, 619, p. 624.

METHODS PRESCRIBED FOR SETTLEMENT FOR COAL DIVERTED IN TRANSIT

The Fuel Administration recently issued a regulation providing two methods either of which may be adopted in arranging settlement for coal diverted while in transit upon order of the United States Fuel Administrator. The order follows:

"Bituminous coal shipped from the mines prior to January 15, 1918, and diverted in transit on orders of or by authority of the United States Fuel Administrator, so that it was not received by its original consignee, shall be paid for by the party receiving the coal to the owner thereof (either shipper, jobber or original consignee as the case may be) by agreement between the parties in interest on either of the following bases as they may elect, and if they are unable to agree then in that one of the following bases which the party who was the legal owner of the coal at the time of such diversion may elect.

"1. At the going government price at the time and place of shipment, and in addition thereto the jobber's commission, if a jobber was the owner, or if the owner purchased through a jobber the coal so diverted and has paid or is legally liable to pay the jobber's commission thereon; or

"2. At the contract price at which the coal so diverted was shipped or sold under a bona fide contract enforceable at law, and in addition thereto the jobber's commission, if a jobber was the owner, or if the owner purchased through a jobber the coal so diverted and has paid or is legally liable to pay the jobber's commission thereon.

"Upon receipt by the United States Fuel Administration (Transportation Department) prior to March 1, 1918, of a written request therefor, showing that settlement between the shipper or jobber of the coal so diverted, and the party to whom such coal was diverted, has been made on the basis of paragraph numbered (1) hereof, instead of on a higher contract price under paragraph numbered (2) hereof, conditioned upon replacement by the shipper to the original consignee of an equal number of cars of coal at the contract price, and that the original consignee has assented to such settlement, the United States Fuel Administrator will arrange to have supplied to the original shipper prior to April 1, 1918, if practicable, cars for the purpose of enabling the shipper to make such replacement in addition to his mines' distributive share of available cars.

"In any case where settlement has already been made at the going government price for any diverted coal, the parties will be deemed to have selected the basis of paragraph (1) above, and if the shipper in any such case, in which the coal was shipped to the original consignee at a higher price under a bona fide and enforceable contract, files a request with the United States Fuel Administration, Transportation Department, in accordance

with the provisions of the foregoing paragraph the United States Fuel Administrator will endeavor in accordance therewith to have cars placed at such shipper's mine for the replacement of the quantity of coal diverted and for which settlement has thus been made.

"Settlements, under the terms of this regulation, for diverted coal may be made only as full settlement of all liability in connection with such diversion as between all parties, including the Government."

MEXICO SHOWS MINERAL PRODUCTION TOTALLING BILLIONS

Under the direction of the Secretary of Commerce and Industry a compilation has been made of the data regarding the production of gold, silver and lead throughout the Republic for the thirty-six years from 1877 to 1913, and will be brought down to date as soon as is possible by the bureaus entrusted with the gathering of statistics concerning all the industries of the nation. During the thirty-six years under consideration there has been a grand total production of the four classes of metals named of \$3,000,000,000.

Of gold there has been produced 424,861 kilograms (934,694 pounds), of the value of \$556,480,093.42.

Of silver, there has been produced 51,713,424 kilograms (113,769,533 pounds), with a value of \$2,059,161,134.72.

Of copper there has been produced 700,000 kilograms (1,540,000,000 pounds), with a value of \$284,445,821.54.

Of lead there has been produced 1,574,549,204 kilograms (3,464,008,249 pounds), with a value of \$84,382,704.98.

The lowest production of gold was in 1885, the total being only 974 kilograms (2,143 pounds), with a value of \$1,298,988.75. The gold production was the largest in 1911-12, when it reached 36,415 kilograms (80,113 pounds), with a value of some \$50,000,000.

In 1877 silver production only reached 607,036 kilograms (1,335,279 pounds), with a value of about \$25,000,000. In 1911-12 the production reached 2,500,000 kilograms (5,500,000 pounds).

In 1911-12 copper reached the total of nearly 60,000,000 kilograms (132,000,000 pounds), while in 1897-98 the production was only 11,298,907 kilograms (24,857,795 pounds).

In 1896-97 the production of lead had reached 55,000,000 kilograms (121,000,000 pounds), while in 1909-10 it reached 125,299,318 kilograms (275,658,499 pounds).

Taking the average of the thirty-six years for which statistics are given, and there should be added for the four years, 1914-15-16-17, at least, \$333,333,333, although the total will probably bring the production from 1877 to and including 1917 up to at least \$3,500,000,000.

(Note—The values as given are in Mexican gold, the equivalent in American gold being one-half, or a grand total for the forty years of at least \$1,750,000,000.)

GARFIELD DEFENDS HIS CLOSING DOWN ORDERS

**Explains Unparalleled Situation Which Caused
Him to Take Action—Says Ships Had to be
Bunkered.**

United States Fuel Administrator Garfield on February 17 addressed the Alumni of Williams College in New York City. Following is an abstract of his speech:

"It is for the President to speak of things international but we may apply his principle to the things at home and near at hand. The underlying conception of the President is expressed in no single phrase, unless it be making the world safe for democracy, but throughout his address there runs the idea of freedom, a new freedom uncontaminated by the old foundations of feudalism and imperialism; a freedom which shall guarantee to the individual man as well as to the nation, be it great or small the right of self-realization, the right of determining one's own destiny and of responsibility before the world for acts performed in achieving this end. Under this freedom a man or a nation may deliberately choose a narrow, self-seeking career. The man or the nation may choose to disregard the rights of others and the common welfare of the world, but the man or nation so choosing will stand condemned in the eyes of those who comprehend the deep significance of the purpose for which our Williams men and millions of others here and elsewhere are devoting their lives. The nation that seeks primarily its own advancement, even though it proclaim a purpose to confer benefits upon the rest of the world, is building on the fallacies of feudalism. It adopts the high and mighty role of benefactor to an inferior and subservient world. The essence of the new spirit may be expressed thus: There are governors, but no governing class. There are great and small nations, but no dominating nation. The least republic of today must be permitted to march unhindered by the selfish ambitions of the most powerful.

"The significant list published by the Williams Club tells us that 20 per cent of our living alumni and nearly one-half of all the undergraduates as of April, 1917, including 90 per cent of the then Senior class, are in the service of their country. The grand total approximates 900. All but 132 of these have graduated from Williams College since I became your president. Therefore I am warranted in some degree in interpreting the motives which have led so large a proportion to respond to the President's call, I dare to say that deep-set in the hearts of these young men, vaguely comprehended at first, clearly felt as the issues of the war have been revealed, is a desire to aid the President in realizing his high ideal, a willingness to suffer even unto death that freedom may be achieved for mankind, but that nothing selfish can com-

mand their willing sacrifice. Our graduates are taking a great post-graduate course in an army dedicated to the service of mankind. They are getting at the truth of two great underlying principles of human action, democracy and autocracy. They began the study in their undergraduate days. There the principle of the common right, of community welfare, of justice and opportunity to the weakest as well as to the strongest, was held constantly before them, but now they see with clear eyes that democracy means the cooperation of willing workers for the benefit of all, and that autocracy, like feudalism and imperialism, means the work of unwilling time-servers for the benefit of an over-lord be he one or many. Having learned the lesson, they will not cease to apply its principles when this war is over. There will be a war after the war, but it will be along lines wholly different from those had in mind by the framers of that unfriendly statement. After the war is finished, when peace shall have come, the conflict that will engage our young men now under arms will be the conflict against the spirit of autocracy in our political, economic, and social life.

"Most of us are unconscious autocrats. In the past few months I have seen many men striving to serve both themselves and the country, a political God-and-mammon service impossible of fruitful results. These really believe that the country would be better off if they were left in undisturbed control. They conceive themselves to be better equipped than others to confer benefits upon those who labor for them in the mines as well as for the consumer in the homes. They are less concerned about justice and fair dealing than they are about efficiency and large profit. Once upon a time a blacksmith placed over his shop this sign: 'Horses shod by a horseshoer.' Here, certainly was a sign worth pondering. A man who knows what he is about is worth cultivating. One summer in the Big Horn Mountains, we had a cook who did not know what he was about. He was a plumber from St. Louis. That, too, is worth pondering. But one may pay too much to the horseshoer and too little to the cook. If one is to set up for a horseshoer, by all means let him know how to shoe horses, but let him not over-charge. In other words, we can pay too much for efficiency. This too, our young men will learn in the post graduate course they are now taking. Efficiency by all means but, if the choice be between efficiency and the democratic spirit of cooperation among willing workers, let us have cooperation and willing workers. My experience with the coal problem demonstrates that neither capital nor labor has a monopoly of virtue. If capital has in some instances endeavored to profit over-much in the present emergency, labor has also been at fault, for there have been those, some of them leaders, who have apparently been unable or unwilling to put aside selfish interests and to labor only as the great majority have done for the common good. But there are the exceptions. The

great majority of the operators and mine workers with whom I have come in contact have seen the vision, they deserve praise for their attitude in the face of the present crisis. They have been ready to sacrifice all, if need be, in the spirit of true cooperation. I cite the exceptions merely to indicate something of the nature of the problem with which these young men must deal in the coming days when the sword shall have been sheathed and when the great work of rehabilitation is undertaken. They have responded nobly to the Nation's call to arms, informed by their experience and inspired by the vision of a world made free. They will assuredly enlist in the great enterprise of peace which shall be the establishment of the spirit of democracy in our own midst. They will array themselves on the side of those who demand equal justice and fair opportunity, and against those who, by whatever means, would secure themselves in power against the common welfare. I do not fear the result because our young men have risen to noble heights. They too, have seen the vision and they will not allow the hope of America to fail.

"The course pursued by the Fuel Administration, though dealing with so prosaic a subject as coal, may be fairly cited as a practical illustration of the principle of which I am speaking. In the week immediately preceding the appointment of the United States Fuel Administrator, the production of bituminous coal had touched the lowest point of the year. From that time until the beginning of December, it rose with slight recessions, the total production for the period exceeding considerably the production for the corresponding weeks of the previous year. How was this accomplished? Unquestionably by securing the cooperation of both the operators and mine workers. One hundred years ago, the coal operator was an autocrat and a villainous autocrat. Mine workers were little better than slaves. In these days they were driven to their tasks. Even in these days so sharp a line has been drawn between labor and capital at the mines that it is hardly surprising to find lack of confidence and suspicion on both sides. It was this more than anything else, accompanied by resultant strikes and lockouts, that forced production of bituminous coal to its lowest point by August 18. There were two ways to proceed. Government, under plea of war necessity, might have used force. I do not deny that in times like these force must be used in last resort to carry out the programmes of government. But there was a better way in this instance and the Fuel Administration relied upon it. Operators and mine workers were brought together. The ideal set up by the President was recalled to their minds. Our dependence upon coal for the prosecution of the war was explained. It was firmly insisted that in the present crisis there should be neither union nor non-union; that in the period of the war all controversy between operators and mine workers must

cease. The appeal was heeded and production steadily rose until winter set in, in spite of the fact that, as some thought, government had laid a blighting hand on legitimate profits. It was a practical illustration of the potency of the new idea of freedom, a demonstration of the efficiency of democracy, and consciousness of a common purpose.

"A still more vivid illustration of the working of the new idea is found in the spirit in which the American people met the economic crisis from which we are just emerging.

"Beginning with December 8, winter laid its grip upon the land and, by the middle of January, had virtually paralyzed our transportation system, but winter was not entirely responsible, perhaps not even chiefly responsible. Week by week during the latter part of the year, the records showed a menacing increase in production of war material. By our very strength as a great manufacturing nation we were fast breaking down the transportation system on land and preventing its development at sea. We had orders for more material than we could hope to carry away. The condition will be best understood when we reflect upon the fact that our foreign commerce increased since 1913 from two billions to nine billions of dollars. The commodities represented by this enormous increase had to be carried on the railroads and then on the ships. Five thousand additional locomotives annually would hardly have met the normal requirements. But during each of the past two years we had actually placed upon our railroads little more than one-half the required number, while in 1915 only 1,251 were received. The rest we sent to France and to Russia. Is it any wonder that loaded cars stood on the tracks for weeks and even months. From week to week the congestion increased. Nearly one-half of the thousands of cars thus clogging railroads were laden with coal. This coal failed to reach its destination and empty cars failed to return to the mines.

"One must keep constantly in mind the fact that the production of coal is a transportation proposition. The immediate effect of this railroad congestion was to deprive people of coal necessary to prevent them from freezing and to keep from the ships carrying supplies to our base abroad the coal necessary for their bunkers. It needs no argument to demonstrate the necessity of keeping people from freezing and of furnishing coal for ships if the war is to be successfully prosecuted. Week by week the number of vessels waiting for bunker coal in our harbors was increasing until, by the middle of January, the total was appallingly large, especially so when one reflects upon the necessity of an immediate and constant contact between armies in the field and the base of supplies. As a result of the closing order, 480 ships carrying over two million tons of food, fuel, and munitions and other war supplies were bunkered and sent from our ports. This is the record from January 17 to 29 inclusive;

forty of those vessels carrying food, 71 carrying coal, oil and gasoline; 369 were laden with munitions and other war supplies. Within a week after the order of January 17 went into effect, all ships ready to sail were bunkered. A normal number only remained at anchor and the flow of supplies necessary to our armies had been reestablished. Important as these facts are in themselves, they are cited merely to bring vividly before you the nature of the economic crisis which was upon us by the middle of January. That you may have the whole picture let me approach the question from another angle. Almost without exception the manufacture of war material was at its highest point about the 1st of December. To cite a few only of the most important articles, the shipments of steel plates essential to the building of our ships fell off nearly 50 per cent during the period from the beginning of December to the middle of January. Without steel plates we cannot build ships. The loss in shipment of merchant bars is still greater. The plotted curves of weekly shipments of all steel products looks like the picture of Niagara, the first of December marking the beginning of the drop and the middle of January the bottom. Even projectile steel dropped 45 per cent during this period. Had this decline been permitted to continue, our most essential war industries would inevitably have been closed down, but not in an orderly fashion. Cooperation demands the share of losses as well as gains. It is noteworthy that the upward trend was resumed for the week ending January 26.

"But figures and diagrams are not essential to my thought. It was only necessary to perceive the destructive force of abnormal production to know that it was vital to the successful prosecution of the war to bunker our ships, to provide coal for domestic consumers, and, so far as the manufacture of war material was concerned, to 'stop, look, and listen.' The thought I would bring home to you is this. The Fuel Administration, believing in the democratic ideal, asked not that some but that all participate in the sacrifice necessary to save us from our own prosperity and that the American spirit arose and asserted itself. There was no crushing of the weak in a great scramble, but all stopped except the few appointed to absolutely necessary work. The reaction of the American people in the face of the greatest crisis which this generation has been called upon to face proved themselves true inheritors of the American spirit and practical advocates of the principles of democracy. They have demonstrated that free action and willing cooperation are more effective than autocratic compulsion. They imposed restraints upon themselves which the entire army of the United States could not have forced them to observe. This is the spirit which animated our founder, Ephraim Wil-

liams, soldier. It is the spirit which dwells in our college among the hills and is transmitted to her sons. It is the American spirit, the spirit of effective cooperation."

WILL ACT ON ALL PRICE COMPLAINTS BEFORE APRIL 1

The regulation of coal prices by the Fuel Administration is the first attempt ever made, at least on a large scale, by the United States Government to fix and establish prices for any of the great industries. It is very important to both the public and the coal industry, Dr. Garfield points out, that the prices so fixed should be based on accurate information as to the conditions prevailing in different fields, and that, when once this information has been received, the right principles should be employed in making use of this information.

The Fuel Administration believes that it has devised a speedy and accurate method for using the cost information which it has in hand, and that it has worked out the fundamental principles which should guide it in considering applications for modifications of coal prices.

It is the purpose of the Fuel Administration to announce decisions on all applications for price revisions now before it prior to April 1, 1918, and, prior to that time, to make such changes in the classification as seem to be necessary, in order to relieve uncertainty on this score, as far as possible, before the beginning of the new coal year.

By this statement, the Fuel Administration does not wish to be understood as stating that the examination of the prices now being made will complete its price work. On the contrary, the Administration will continue to collect and study facts relating to the cost of production of coal and the prices at which it is sold. It will make such further readjustments, from time to time, as are necessary to keep the prices on a scale fair to the public, fair to the coal industry, and sufficiently high to encourage production. It hopes, also, to take measures in the very near future to encourage and insist upon the use of less wasteful methods of mining, the sale of clean coal, and the more definite recognition of the different qualities of coal in the government prices.

Brydon's Territory Increased

Important additions have been made to the territory in which John C. Brydon will work as district representative of the United States Fuel Administration. Originally appointed to serve as representative of all individual shippers and mines in Somerset County, Pa., the order for his appointment was today amended to include in his territory the coal fields in Maryland and in Mineral, Grant and Tucker counties, West Virginia. Mr. Brydon's headquarters will be at Cumberland, Md.

OPERATORS RECOGNIZING GOOD COMING FROM WORK CONDUCTED BY AMERICAN MINING CONGRESS

That the wide field of usefulness of the American Mining Congress in aiding in the general improvement of conditions surrounding the industry is becoming more and more apparent each day, leading operators of the nation have pointed out recently to various directors of the organization.

This opinion has been fostered by much of the recent work of the Congress in relation to a number of big problems affecting the industry such as the excess profits law, leasing bills, silver question and coal field problem.

At the headquarters of the Congress at various meetings were gathered many members of the national House of Representatives and Senate and in the thorough discussions held many problems were satisfactorily explained and the mining men vitally interested in them got a closer view of their national legislators and their interest in the problems affecting their various states.

Hardly a day passes but that several letters praising the work the Congress is accomplishing are received at the Washington headquarters. They come from all sections.

"I take this opportunity of writing you to express my personal good wishes," says B. Britton Gottsberger, general manager of the Miami Copper Company, of Miami, Ariz., "and my appreciation of the results which I feel you are accomplishing for the mining industry in general.

"At a meeting of the Arizona Chapter recently held in Douglas, it was the unanimous opinion of the directors that you were entitled to much more support than you have received in the past and I sincerely hope that the other states throughout the West will take the same action that we have done."

Another letter of much interest comes from the south, J. H. Jones, general superintendent of the Durham Coal & Iron Co., of Chattanooga, Tenn., one of the big representative organizations of the southern coal fields:

"We are pleased to note the various lines of activity," says Mr. Jones, "your office is carrying out—all pertaining to the interests of the industry.

"While we have no suggestions to offer that would better the lines of your endeavor, yet we are in thorough sympathy with your work and are prepared to cooperate in any way possible. Should any matters occur which we desire to present for your consideration or courtesy, we will be pleased to take them up with you promptly."

Speaking of the Raleigh Coal & Coke Co., of Raleigh, W. Va., of which he is the general manager, Ernest Chilson, prominent in the coal councils of West Virginia, says, "We also

want to advise you that we believe the American Mining Congress is doing an excellent work for the best interests of the mining business."

From the far western state of Idaho, Mr. Stanley A. Easton, manager of the Bunker Hill & Sullivan Mining & Concentration Company (The Coeur D'Alene), writes as follows: "Following the understanding had with Mr. Burns by Mr. McCarthy, Mr. Day and other operators of the district, I enclose check for \$1,500 as a contribution towards the support of the American Mining Congress by the principal operators of this district. I understand that our arrangement contemplates an additional payment of \$1,500 within six months hence. With appreciation of the excellent work being conducted by the American Mining Congress under your direction at Washington for the benefit of the industry, I am, with best wishes."

Speaking of one of the special bulletins relating to moves in the mining development of the country, sent to him at Salt Lake City, Mr. L. F. Rains, large coal operator of that city, says, "I beg to acknowledge receipt of your letter of the 12th instant and wish to thank you for the information contained therein. The subjects mentioned are of great interest to me and any information of this character will be appreciated at any time you see fit to forward it. If at any time I can be of any assistance in any way to you, I trust you will not hesitate to call on me."

Mr. C. W. Taylor, vice-president of the W. G. Duncan Coal Co., of Greenville, Ky., and one of the largest operators in the Western Kentucky coal fields, is a staunch supporter of the work of the Congress and in a recent letter calls especial attention to the general effort along all lines for the advancement of every branch of mining.

"I note with interest the activities of the American Mining Congress in matters pertaining to the mining industry generally," says Mr. Taylor, "and heartily agree that much may be accomplished along these lines in the interest of that business. We feel sure that any member of the American Mining Congress will have a friend at court on any question affecting our interests."

Preston County Prices Changed

All bituminous coal mines in Preston County, West Virginia, have been granted the following prices: run of mine, \$2.40; prepared sizes, \$2.65; slack, or screenings, \$2.15.

This order is an amendment of the order issued by the Fuel Administrator January 31, which restricted the prices so fixed to the mines in certain portions of Preston County.

Investigation disclosed the fact that similar freight rates and mining conditions prevail all through Preston County, and the order was amended accordingly.

ELIMINATION OF JOBBERS' MARGIN CAUSES VIGOROUS PROTESTS

Numerous protests from consumers, as well as from jobbers and other coal dealers, are coming in against the proposed revocation of the regulation under which jobbers are now allowed to add a commission, or margin, to the prices of coal at the mines.

These protests are based, the Fuel Administration says, upon the false assumption that the revocation of that regulation will drive the jobber out of business.

The Fuel Administration disclaims any intention to eliminate legitimate jobbers from the coal business. It has not only recognized their importance to the conduct of the trade, but has announced its intention to so fix the prices of coal at the mines as to enable the mine operators to compensate the jobbers for their services. The Fuel Administration insists that bona fide jobbers will not be forced out of business by the proposed change. They will simply be compelled to look to the operator for their compensation as they were accustomed to do before the allowance by the Fuel Administration of the margin.

In view of the protests, however, the Fuel Administration has deemed it advisable to make a more detailed statement than it has done heretofore, of the circumstances that impelled it to take the proposed action.

Prior to the entrance of the United States into the war and for nearly three months thereafter, the jobber had always bought from the operator for less than the retailer could buy direct. In other words, the price to the retailer was the same whether he bought direct from the mine, or through the jobber. The so-called jobbers' margin was an innovation.

After the Fuel Administration had been organized, and the President had fixed the prices of coal, the practice of allowing the jobber to add his commission to those prices was continued.

Under the regulations issued by President Wilson, August 23, 1917, a jobber is defined as "a person (or other agency) who purchases and resells coal to coal dealers or to consumers without physically handling it on, over or through his own vehicle, dock, trestle, or yard."

After several months of operation under the practice of allowing the jobber to add a commission, or margin, to the price of coal at the mine, it developed that this margin was being charged and collected in many ways not contemplated by the Fuel Administration. Agencies, which, while technically jobbers, were not such in fact, or were closely affiliated with the operators for whom they acted, collected the jobbers' margin which thus became a mere increase in the profit of the operator.

One of the methods by which this profit was obtained by the operator, was the practice of "swapping coal." Two operators would agree to act as jobbers for each other

in the sale of their output, each collecting the jobber's margins.

Another practice was that of organizing subsidiary companies, the sole function of which was to act as the ostensible jobbers of the producing companies by which they were owned, and to collect the commission allowed by the Fuel Administration.

The effect of these practices was to add from 15 to 30 cents a ton to the cost of coal to the consumer for services that were merely fictitious, and to give operators indulging in such practices a greater profit than that obtained by those of their competitors who employed bona fide jobbers. The business of the bona fide jobber suffered materially by reason of these practices.

Officials of the Fuel Administration felt that a continuance of the commission allowance to jobbers would be tantamount to a tacit consent to the operation of these fictitious jobbers. Effective supervision of the business of individual operators and jobbers, and investigation of their relations could not be undertaken by the Fuel Administration because of the expense and the amount of labor that would have been entailed.

After a thorough investigation of every phase of the situation, which included conferences with representatives of every branch of the coal business, the Fuel Administration decided that the only solution was to recommend to the President the revocation of the regulation allowing the commission or margin to the jobber, and as a substitute the fixing of prices of coal at the mine that will enable the operator to compensate the bona fide jobber for his services.

MONTANA AND TEXAS TO TAKE CARE OF OWN COAL NEEDS

Official reports received by the United States Fuel Administration show that two states of the Union, Texas and Montana, are preparing to take care of their own coal needs in 1918 and subsequently during the war. In the past both states have been large consumers of coal produced in other states; but, realizing the war needs of the nation, the coal users of the two commonwealths will now make every effort to supply their needs through an increased production from their own mines.

"Montana people must put aside their hard coal burners," said State Fuel Administrator W. J. Swindlehurst. "This may work some hardship, but the fuel shortage is teaching the people of Montana that they can get along with coal produced at home, and that they can effect a saving thereby. Montana consumed 5,378,612 tons of coal last year, of which 1,158,612 tons were brought in from the outside. The state must get along this year on its own coal, releasing the extra million tons for war uses."

WEST VIRGINIA GETS BETTER CAR SUPPLY

Mining Congress Aids in Placing Matter Before Proper Officials.

Car service conditions are daily improving in West Virginia and other big coal producing states and representatives of the American Mining Congress who have spent much time on the matter in Washington for the past month are much elated over the reports being received from the affiliated operators of the organization.

D. R. Lawson, secretary of the Central West Virginia Coal Operators Association at Fairmont, and Max T. Price, secretary of the Kanawha Coal Shippers' Association at Charleston, who have both been leading in the fight for improved car conditions, are also pleased with the prospects of their associated operators getting a full car supply.

Both Messrs. Lawson and Price have for several months past been sending daily telegrams to the West Virginia delegation in Congress as well as the Fuel Administration leaders, informing them of the car supply in the state, and early in the work established a prima facie case against the railroads, thus eliminating the operators from much abuse on the part of the consuming public.

Conditions have shown such general improvement that Mr. Price several days ago telegraphed Senator Howard Sutherland, of West Virginia, as follows: "Owing to the improved conditions as regards car supply in the Kanawha district our daily reports will be discontinued for the present. They will be renewed later if there is a decided decrease in the supply of coal equipment."

For some days there has also been a big improvement in the Fairmont-Clarksburg field and Secretary Lawson has pointed out there has been a big improvement in the Baltimore & Ohio Railroad car supply to the mines and on several days during the past two weeks a full car allotment was furnished the operators.

Thoroughly familiar with the conditions in the West Virginia fields, by reason of close association there for some weeks previous William M. Conrad, assistant secretary of the American Mining Congress, spent much time during February in Washington presenting these conditions to Assistant Director General of Railroads Chambers aiding materially in bringing the matter thoroughly to the attention of the National Railroad Administration.

The situation was first brought directly to the attention of Mr. A. H. Smith, regional director of railroads at New York, who was doing all in his power to get the 10,000 or more coal cars congested in the snows of New England to the coal fields.

This congestion, it was pointed out, was caused by the fact that barges could not be

used at Hampton, Va., and New York on account of the ice conditions, and it was therefore necessary to send the cars through to New England points.

However, Mr. Smith has been doing splendid work in the metropolis, and the cars have been steadily hurried toward the coal fields until the supply is now again approaching normal conditions.

As soon as this car supply began to arrive the word again went out that the fields of West Virginia and adjoining states were not securing their part of the supply at hand and Mr. Conrad took the matter up with Mr. F. G. Minnick, manager of the Eastern Railroads Car Pool with headquarters at Pittsburgh, and late in February this official, a practical railroad man, promised results in these fields in question within a week of normal weather.

How well he succeeded was noted in reports from the Fairmont-Clarksburg field about ten days later when operators reported that the Baltimore & Ohio Railroad by a "super-human effort" had sent 1,400 cars into the region on Monday morning. The supply in this field on the following Tuesday and Wednesday was but one-third of this number, but the operators, even with this supply, pointed out that they could survive, with equal distribution, until ideal weather conditions again allow the railroads to move a sufficient car supply to meet the normal demand.

Mining Timber Bill Passes

The Senate recently passed a bill affecting timber for mining purposes.

The bill (S. 26) authorizes the cutting of timber for mining purposes by corporations organized in one State and conducting mining operations in another. It proposes that section 1 of an act entitled "An act authorizing the citizens of Colorado, Nevada, and the Territories to fell and remove timber on the public domain for mining and domestic purposes," approved June 3, 1878, and section 8 of an act entitled "An act to repeal timber-culture laws, and for other purposes," approved March 3, 1891, and the several acts amendatory thereof, be extended so that it shall be lawful for the Secretary of the Interior to grant permits to corporations incorporated under a Federal law of the United States or incorporated under the laws of a State or Territory of the United States, other than the State in which the privilege is requested, said permits to confer the same rights and benefits upon such corporations as are conferred by the aforesaid acts upon corporations incorporated in the State in which the privilege is to be exercised, provided that all such corporations shall first have complied with the laws of that State so as to entitle them to do business therein.

WYOMING CHAPTER ADOPTS IMPORTANT SET OF RESOLUTIONS

The Wyoming Chapter of the American Mining Congress passed the following resolutions at their meeting, held at Casper, January 19:

ADVOCATING DEPARTMENT OF MINES

Whereas the production of metal, both rare and commercial, coal, oil, and gas are of vital importance in the development and stabilizing of commerce in the United States, and

Whereas these wasting industries demand technical, well-trained and highly efficient management under especially established laws and regulations, and

Whereas the mining industry, in all its phases, constitutes the greatest collective industry in the United States because of the fact that it furnishes the sinews of the war and strength of the nation in peace, Be it

Resolved, That it is the sense of the Wyoming Chapter of the American Mining Congress that this great industry should not be subject to the rulings and decisions of a sub-department or any group of sub-departments of the Federal Government, but should be under the executive control of a department of mines whose executive head should be a member of the Cabinet of the President of the United States. Be it further

Resolved, That it is the sense of the Wyoming instructed to forward a copy of these resolutions to His Excellency the President of the United States, and to the Members of the United States Senate and Congress from Wyoming, and to the secretary of the American Mining Congress with the request that this resolution be placed in the hands of all affiliated branches of the American Mining Congress, and that early consideration of this matter be requested at the hands of all such individuals and organizations as are named herein.

REGARDING GOVERNMENT CONTROL

Whereas the unusual conditions caused by the world war and by the cooperation of the United States with its Allies, have created conditions resulting in the establishment of certain departments with control of commercial life and development of the United States, the distribution and sale of certain commodities, and the management and control of certain great industries, and

Whereas it might easily become a fixed policy on the part of the Government of the United States to hereafter and perpetually assert parental control over the industries of the United States. Be it hereby

Resolved, by the Wyoming Chapter of the American Mining Congress, that the Members of the Senate and the Lower House of Congress, representing the State of Wyoming, be petitioned to consider the advisability of introducing legislation in both Houses of Congress looking to a withdrawal of all Federal control of business, either immediately after the close of the war, or within a reasonable period considered necessary for the readjustment of the country when peace is declared.

THE WALSH-PITTMAN BILL

Resolved by the Wyoming Chapter of the American Mining Congress:

That in keeping with the purpose of Senate Bill No. 2812, entitled "A Bill to encourage and Promote the Mining of Coal, Phosphate, Oil, Gas," etc., we urgently request that Sections 16 and 17, of said Senate Bill, be included in the House Bill touching the premises, and that there shall be added to the first paragraph of said Section 17 the following words:

"Within each geological dome or structure to be properly defined by the Secretary of the Interior."

Also *Resolved*, That there be added to the second paragraph of said Section 17, by inserting after the words "If the claim was initiated within less than five years prior to the withdrawal," the following:

"or who under a bona fide claim of discovery expended in work or improvements for each claim during each year, when not included in a withdrawal, the amount required by Section 2324, Revised Statutes of the United States, and has never abandoned said claim, if located more than five years prior to a withdrawal." Be it further

Resolved, That the elimination of Sections 16 and 17, as above mentioned, from the Senate Bill, as we are advised is proposed to be done in the House, would annihilate and destroy the investment of millions of dollars in property rights in the oil industry in Wyoming, Colorado, and other Western States and in mid-Continent field, and throw out of employment a vast army of workers now bending every energy to increase the production of oil, so necessary to the successful prosecution of the war, in which every patriotic citizen is vitally interested, and would thus defeat the purpose of the bill. Be it further

Resolved, That the general leasing provisions of the Walsh bill should be modified by placing a more liberal limitation upon the number of leases which may be held in a single interest, such as one lease within one dome or structure, and by amending the stockholders provision in Section 23 to permit a stock interest in several leases, that the successful prospector be granted a right to lease the entire area within his permit, and that Congress be requested to enact the Walsh bill, or one of substantially the same tenor, with the amendments here proposed.

THE BUREAU OF ECONOMICS

Whereas at the present time neither the general public nor intending investors can secure collective facts and history relating to the oil industry of the United States or any State district, or field, without considerable expense, and

Whereas much of the misunderstanding on the part of the general public, and the Congress of the United States in particular, relative to the oil industry as caused by this lack of information. Be it

Resolved by the Wyoming Chapter of the American Mining Congress, that the Congress of the United States be requested to establish a bureau of oil economics, either as a Federal commission with a permanent organization or a permanent sub-department of the Department of the Interior, that necessary appropriations for the expenses of the organization, field work, and management of this proposed Bureau of Oil Economics accompany the passage of the proposed legislation.

The following resolutions were unanimously adopted at the meeting of western mine operators representing Idaho, Montana, Nevada, Utah, Wyoming, and Colorado, held in Denver, January 24:

READJUSTMENT OF SILVER PRICES

Whereas we are reliably informed that the Government, for the purpose of settlement of adverse trade balances, for the assistance of our Allies, and for other urgent Government needs, has in contemplation the introduction of a bill providing for the withdrawal of a considerable part of the reserve of silver now standing behind United States Silver Certificates in circulation, and the temporary withdrawal of the said certificates, under a plan whereby the Government proposes purchasing silver at the fixed price of one dollar per ounce for its immediate needs and for the replacement of silver so withdrawn from the Treasury, until the silver withdrawn, as hereinbefore stated, shall have been completely replaced, and

Whereas, it is the desire of the silver miners of the West to cooperate with the Government in any plan which, at this time, may be found necessary to the successful conduct of the war, having in mind, however, that the real interests of the Government will not be served unless the prices fixed for the products of its mines be sufficiently high to maintain production to that point where the present and future needs of the nation and its Allies will be properly cared for. Therefore be it

Resolved, That this conference of the Colorado Metal Mining Association and Colorado Chapter of the American Mining Congress, together with delegates from the mining organizations of Utah, Idaho, Montana, Washington, Nevada, and Wyoming, held in Denver on the 22d, 23d, and 24th days of January, 1918, does hereby endorse the proposed plan of the Government hereinbefore stated, and pledges its cooperation in securing such legislation as may be necessary to make the said plan effective. And further

Resolved, That a copy of this resolution be forwarded to Mr. J. F. Callbreath, secretary of the American Mining Congress, Washington, D. C., with instructions to bring the same to the attention of those who may be instrumental in its accomplishment.

REGARDING FEDERAL COOPERATION IN MINING

Whereas there has been advocated by the War Minerals Committee legislation looking to administrative control of all mineral production, and

Whereas this conference, while declaring itself as unreservedly, absolutely, and wholeheartedly behind the Administration in all efforts designed to bring the war to a successful conclusion, believes that the production of the copper mines is adequate, of the lead mines more than adequate, and of the zinc mines far in excess of current demands, and that there is no reason to anticipate any marked changes in these conditions for several years to come, and that there exists, by reason of these facts, neither occasion nor justification for Government control or operation of these mines, and

Whereas, on the other hand, the supply of certain so-called rare metals and minerals, namely: molybdenum, tungsten, manganese, chromium, pyrites, potash, and nitrates, is entirely inadequate for the nation's need now and hereafter. Therefore be it

Resolved, 1. That we favor the encouragement by subsidy, direct and indirect, and in every other way, of the production of such rare metals.

2. That we favor the stimulation by every possible means of the production of gold and silver.

3. That we do not favor Government control or operation of mines producing gold, silver, copper, lead, zinc, or other metal or mineral, unless a shortage should develop therein. And be it further

Resolved, That copies of this resolution be sent to the secretary of the American Mining Congress, and to the various State organizations represented for transmission to their respective Congressional delegations, and to the members of the various House and Senate committees concerned, to the Secretary of the Interior, and to the Director of the Bureau of Mines.

WALSH-PITTMAN BILL ENDORSED

Whereas the welfare of the mining industry requires closer cooperation in an ever increasing degree in order to protect the best interests of the industry and of the nation itself.

Resolved, by the general conference of the western delegates to the American Mining Congress in convention assembled, in Denver, Colo., January 23, 1918, that we most heartily endorse and support the resolution hereto attached, adopted by the Oil Section of the Colorado Chapter of the American Mining Congress, on January 11, 1918, favoring the passage in the House of Representatives of the United States of Senate Bill No. 2812 (commonly known as the Walsh-Pittman Bill), which has passed the Senate and is now pending before the House of Representatives. Further

Resolved, That a copy of this resolution be forwarded to all the members of the Public Lands Committee of the House of Representatives.

Resolved by the Oil Section of the Colorado Chapter of the American Mining Congress, That Senate Bill No. 2812, known as the Walsh-Pittman Bill, will greatly curtail the development of the oil fields in the West and the production of oil, and is not as liberal as the pioneers and prospectors of the West had hoped to obtain from Congress. Nevertheless, said bill, as passed by the Senate, is acceptable to this organization, provided there be added to the first paragraph of Section 17, in order not to confine the

operations of active developing companies to one particular structure, the following words:

"Within each geological structure to be properly defined by the Secretary of the Interior." Be it further

Resolved, That the elimination of Sections 16 and 17 from the Senate Bill, as we are advised is proposed to be done in the House, would annihilate and destroy the investments of thousands of dollars in the oil industry in Wyoming, Colorado, and other Western States and in the mid-Continent Field, and throw out of employment a vast army of workers now bending every effort to increase the production of oil so necessary to the successful prosecution of the war in which every patriotic citizen is vitally interested.

FAVORING DEPARTMENT OF MINES

Whereas the production of metal, both rare and commercial, coal, oil, and gas are of vital importance in the development and stabilizing of commerce in the United States, and

Whereas these wasting industries demand technical, well-trained and highly-efficient management under especially established laws and regulations, and

Whereas the mining industry, in all its phases, constitutes the greatest collective industry in the United States because of the fact that it furnishes the sinews of the war and the strength of the nation in peace. Therefore be it

Resolved, That it is the sense of the American Mining Congress that this great industry should not be subject to the rulings and decisions of a sub-department or any group of sub-departments of the Federal Government, but should be under the executive control of a Department of Mines, whose executive head should be a member of the Cabinet of the President of the United States. *ADOPTED*

BUREAU OF ECONOMICS

Whereas the Government reports concerning mines and mining are often insufficient to meet the immediate needs of persons or corporations desiring data regarding certain phases of mining operations, costs of production, etc. Be it

Resolved, by the conference, that the American Mining Congress be requested to establish a Bureau of Economics for the purpose of assembling from Federal, State, and private sources, statistics, costs, transportation, history, etc., of every phase of mining, including oil and gas, and to classify and promulgate such information for the assistance of the Congress of the United States intending investors and publishers.

ENLARGED WORK OF AMERICAN MINING CONGRESS

Your committee appointed to consider and report to the conference a plan under which the enlarged work of the American Mining Congress can be financed, respectfully report the following recommendation:

That a contribution of \$3,000 be apportioned to each of the following States: Arizona, Nevada, Idaho, Montana, Colorado, Utah, California, Wyoming, and Oklahoma, this sum to be raised by each State under whatever plan may seem most advisable and practicable; that 50 per cent of this money be paid into the treasury of a finance committee within the next thirty days, and the remainder within six months from this date, and that the work of organizing and completing this finance campaign be placed in the hands of a special finance committee composed of Mr. Buckley Wells, of Colorado; Hon. Emmett D. Boyle, of Nevada; and Mr. James M. McCarthy, of Idaho.

Oil Meeting Postponed

The conference of oil well supply men and officials of the Oil Division of the United States Fuel Administration, originally called for Monday, March 4, has been postponed until Monday, March 11.

URGES SUPPORT FOR THE MINING CONGRESS

**Mining and Scientific Press Comments on
Work Being Done in Behalf of the Mining
Industry.**

Recognition comes slowly to a great work. It is difficult for the individual to appreciate a general work no matter how greatly he may be benefited thereby. The American Mining Congress has been working steadily and conscientiously for the best interests of the mining industry, and it is with a great deal of real pride and appreciation that we print the following editorial recently published in the Mining and Scientific Press of San Francisco:

"A distinguished mining engineer, recently returned from Washington, has expressed to us his belated appreciation of the good work that is being done by the American Mining Congress, as represented by Mr. J. F. Callbreath, the secretary of that organization. Like many others, our friend had been under the impression, which we shared at one time, that the Mining Congress was kept going by a group of second-rate promoters and men of that ilk, although, from time to time, sundry professional men of high character had associated themselves temporarily with the organization. The point of this story is that the mining engineer, whom we have quoted, has confessed to us his discovery that Mr. Callbreath and Mr. Walter Douglas, the distinguished president of the Mining Congress, are doing a distinct public service at Washington, and are performing a function necessary to the protection of the national mining industry. They need support, in the form of more extensive membership, to be secured by the formation of local State chapters. To put his opinion into effect our informant himself became a member and is now taking steps to further the second suggestion. We share his viewpoint. The American Mining Congress has had its vicissitudes, it was not always an agency that the mining profession could support with real enthusiasm. For ourselves, we began to take it seriously when Mr. J. H. Richards was president for several years, and was supported by such men as the late Ernest R. Buckley, trying not in vain to make it a useful factor. To the Mining Congress we owe the creation of the U. S. Bureau of Mines, the Safety First propaganda, and the efforts to amend the mining law. We need an organization that will include all the diverse elements engaged in mining, and we need some sort of annual convention in which these elements can be articulate. We need also somebody authorized to watch legislation in Congress in behalf of the mining industry, somebody or some committee that is out of politics and free to act independently in the interests of mining. Mr. Callbreath should be given the good will and support of

the mining fraternity, and to that end it will be well if the California Metal Producers Association, having headquarters here in San Francisco, and the Chamber of Mines and Oil, at Los Angeles, would join in forming a California Chapter of the American Mining Congress."

JANUARY COAL PRODUCTION FALLS UNDER THAT OF SAME MONTH IN 1917

The January output of soft coal failed to make good the slump recorded in December. The total production of bituminous coal (including lignite and coal made into coke) is estimated as 42,727,000 net tons, only 57,000 tons more than the December production. Indeed, because January contained 26 working days as compared with 25 in December the daily rate of production in January was lower than in December. Preliminary estimates place the average daily output during January at 1,643,000 tons as compared with 1,686,000 tons in December. These are the figures of the United States Geological Survey.

The rate of bituminous production during the first month of 1917 was lower than in any month since September, 1916. The cause underlying this alarming depression was an unprecedented congestion of the transportation system of the country induced in part by unusually severe weather.

Bunker Coal

No coal in the future is to be billed at the special bunker price until it has been actually placed in foreign bound vessels. The special price allows an additional \$1.35 per ton of 2,000 pounds on export and bunker coal.

The Fuel Administration interprets "coal for foreign purposes" to mean coal put into the bunkers of any vessel bound for a foreign port. Coal for the army, navy, and government transports, and coal shipped to any of the dependencies or possessions of the United States for the account of any government department, does not take the special bunker price.

Assistant Representatives Named

The United States Fuel Administration has announced the appointment of Assistant District Representatives to work under the supervision of Mr. H. N. Taylor. Mr. Taylor is District Representative for the coal fields of Arkansas, Iowa, Kansas, Missouri, Oklahoma and Texas, to serve as representative of all individual shippers and mines included in that area.

The Assistant District Representatives appointed to assist Mr. Taylor are: D. F. Cushing, Des Moines, Iowa; Charles Markham, Kansas City, Mo.; J. G. Puterbaugh, McAlester, Okla.; J. W. Hinton, Ada, Okla., and W. H. John, Bridgeport, Texas.

EMBARGO ON MINING SUPPLIES IS RAISED

Much Satisfaction Expressed by Operators and Supply Houses—Mining Congress a Factor in Securing Ruling.

Much satisfaction was expressed by mining operators and mining supply people when during the latter part of February the Director General of Railroads announced that mining supplies had been exempted from the embargo and the railroads would accept freight of this character.

Ten days previous to this action the American Mining Congress had been informed through Secretary Callbreath that this character of supplies would shortly be placed on the exemption list and a bulletin to this effect was sent at once to the various affiliated mining operators and supply houses of the contemplated action.

The information that the exemption list would include mining supplies came after several weeks of vigorous objection on the part of William M. Conrad, assistant secretary of the American Mining Congress, who pointed out to the railway people that if they expected the coal mines of the country to get out a supply of coal, then in all fairness they should be allowed a continuous line of supplies so that operations would not be hindered in the least.

It was pointed out that coal mining supply houses in various parts of the country had their shipping warehouses loaded with goods already ordered by coal mine operators who were depending on the receipt of these supplies if they were to keep up their production.

"What are we to do?" operators asked as they figured on increasing their production to the utmost, and at the same time Uncle Sam's railway officials were holding out and announcing they could not haul the necessary supplies.

However, the officials soon saw that they must get the needed supplies to the mines if the production was to be kept up and in instances increased, and the exemption order came.

Three days before the order was printed the American Mining Congress bulletined a copy to every affiliated operator and mining supply house that it was in effect and that railway agents everywhere had been ordered to accept mining supplies as freight.

From various parts of the country came congratulatory letters as soon as this bulletin was received and many inquiries came also for details. These were replied to almost immediately, and special information sought given with the sanction of the national railway officials.

In some parts of the country railway agents

have not interpreted the exemption order as they should have and in instances shippers have had their freight refused by the carriers, but this delay has been only temporary.

As soon as these matters were brought to the attention of the Mining Congress the instances were brought at once to the attention of the Car Service Commission officials of the National Railway Administration, and orders were at once issued to the various railway agents directing them to accept the freight in question at once and to do all in their power to expedite its movement.

On account of the delay in the acceptance of these necessary supplies in instances much loss has been suffered by mining supply manufacturers.

Promptly with the exemption order came the question from a big steel rolling mill which manufactures light steel rails used in mines exclusively if it was to be allowed its raw material from various shippers. Agents had refused the shipments and in instances as many as ten carloads were waiting to be taken by the roads, while the mill had shut down and many workmen had been forced out of employment.

These matters were taken up at once and the national railway officials issued special orders that this raw material should be moved at once to its destination.

Thus in another instance the Mining Congress was able to be of distinct service to one of its active members, a big manufacturer who has been affiliated with it for some time past.

COMPLIANCE WITH STATUTE

To entitle the locator of a mining claim to a patent he is required to locate the tract claimed, not exceeding 1,500 feet in length and 300 feet on each side of the vein, to file in the proper land office an application for a patent, together with a plat and field notes of the claim made by or under the direction of the Surveyor General, showing the boundaries of the claim distinctly marked on the ground so they can be readily traced, to post a copy of such a plat with a notice of the application for patent on the claim, to file an affidavit of two persons that the notice was duly published sixty days, to file with the register of the Land Department a certificate of the Surveyor General that \$500 worth of labor had been expended in improvements on the claim and that the plat filed is correct, and to file his own affidavit that the plat and notice were posted on the claim. The question whether or not the applicant has sufficiently shown compliance with these and other conditions specified by the acts of Congress and is entitled to a patent is the ultimate question which the Land Department is empowered and required to decide before the issuance of a patent for a mining claim.

Conkling Mining Co. vs. Silver King Coalition Mines Co., 230 Fed., 553, p. 558.

BUREAU OF MINES NEEDS MONEY FOR ITS WAR WORK

Appropriations are asked by the Bureau of Mines as follows:

Total appropriation	\$250,000
Manganese	80,000
Pyrites and sulphur.....	35,000
Sulphuric acid	25,000
Graphite	20,000
Tin	15,000
Mercury	5,000
Potash	10,000
Tungsten	7,000
Antimony	10,000
Chromite	15,000
Magnesite	5,000
Mica	3,000
General expenses	20,000

Manganese.—Experiment and demonstration to extend the use of spiegeleisen and manganiferous pig iron to replace ferro, \$40,000; production of silico and ferro alloys in the electric furnace, \$5,000; treatment of rhodocrocite, \$5,000; Analysis of manganese specifications for steel, \$3,000; Substitutes for manganese in steel manufacture, \$5,000; field parties to examine and sample ore deposits, \$10,000; concentration of low-grade ores, \$10,000.

Pyrites and Sulphur.—District engineers to supervise and stimulate pyrite production, \$15,000; preparation and use of pyrite from coal mines, \$8,000; utilization of pyrite cinder, including the recovery of copper, \$3,000; use of pyrrhotite, \$3,000; the treatment of sulphur, including flotation as applied to surface deposits in the West, \$3,000; reduction of sulphur used for wood pulp (sulphate wood pulp), \$3,000.

Sulphuric Acid.—Increasing the efficiency of chamber plants, \$5,000; investigation of the possible reduction in the consumption of acid, \$5,000; recovery of sulphuric acid in the manufacture of high explosives, oil refining, pickling iron and steel, and utilization of "niter" cake from explosives plants, \$5,000; use of enriched air or oxygen in manufacture of acid and use of liquid SO_2 , \$5,000; concentration of chamber acid, \$5,000.

Graphite.—Improvement in milling practice, including flotation and electrostatic separation of mica and improvement of health conditions, \$8,000; domestic graphite for crucibles compared with foreign materials—use of low-grade flake—use of suitable domestic clays—standardization of domestic product, \$5,000; utilization of amorphous and low-grade graphite, including possible manufacture into artificial flake, \$5,000; substitution of electric furnace steel for crucible steel, thereby eliminating crucibles, \$2,000.

Tin.—Recovery of waste tin, \$15,000.

Mercury.—Concentration of low-grade ores—improvement furnace practice, \$2,000; uses and substitutes for mercury, particularly for fulminate, \$3,000.

Potash.—Potash survey—recovery from cement kilns and blast furnaces—alunite, leucite, feldspar, brines, and mine tailings, \$10,000.

Tungsten.—Improved methods and reduction in losses in milling of ores and manufacture of ferro, \$5,000; properties and use of molybdenum as substituted for tungsten, \$5,000.

Antimony.—Substitution for antimony for hardening lead (calcium, barium, and lead), \$4,000; domestic versus Chinese antimony when used as antimony sulphide for primers and small-arm munition, \$3,000.

Chromite.—Field examinations, \$5,000; concentration of low-grade ores for ferro-chrome and refractories, and use of low-grade ore for salts, \$5,000; substitutes for chromite for refractories (magnesite) and for ferro, \$5,000.

Magnesite.—Addition of iron to domestic product for refractories—preparation, experience in use, permanent market, 5,000.

Mica.—Standardization of mine product—properties of domestic mica as compared to imported product, \$3,000.

War minerals occur in the States as follows:

Alabama, graphite, pyrite; Arizona, manganese, tungsten, molybdenum; Arkansas, manganese; California, pyrite, chromite, mercury, magnesite, tungsten, manganese, molybdenum, potash, strontium; Colorado, tungsten, manganese, pyrite, molybdenum, sulphur; Georgia, pyrite manganese; Illinois, coal brasses; Indiana, coal brasses; Louisiana, sulphur; Maine, pyrite; Maryland, chromite; Massachusetts, pyrite; Minnesota, manganese; Missouri, pyrite; Montana, manganese, arsenic; Nebraska, potash; Nevada, mercury, antimony, manganese, sulphur, tungsten; New Jersey, potash; New Mexico, manganese; New York, pyrite, graphite; North Carolina, tin mica; Ohio, coal, brasses; Oklahoma, manganese; Oregon, chromite; Pennsylvania, chromite, pyrite, graphite; South Carolina, pyrite; Tennessee, manganese; Texas, graphite, mercury, sulphur, strontium; Utah, sulphur, manganese, arsenic; Virginia, tin, pyrite, manganese; Washington, magnesite; Wisconsin, pyrite; Wyoming, chromite, sulphur.

Emergency Coal Orders

Under instructions issued by Dr. Garfield, State Fuel Administrators will hereafter determine not only to whom emergency coal shall be supplied but also from whom the coal thus diverted shall be withheld.

Will Prevent Mixing Coal

The Fuel Administration has announced a ruling intended to prevent producers from charging more for a mixture of cannel and bituminous coal than the price fixed by President Wilson for bituminous coal at the mine.

SEES LITTLE GOOD IN FUEL POLICY

**Senator Reed Wants Fuel Administration
Directed by Men Experienced in the Coal
Business.**

Nearly one thousand pages of printed matter are contained in the report of the investigation of the sub-committee of the Committee on Manufactures of the United States Senate, of which Senator James A. Reed is chairman. The investigation brought out a great many interesting facts concerning the shortage of coal and the activities of the Fuel Administration, as well as the activities of the Peabody Committee in conjunction with Secretary of the Interior Lane. Senator Reed has just filed with his committee a very comprehensive resume of the result of this investigation. This brief of the testimony shows the production of coal during the year 1917 was approximately fifty million tons greater than during the year 1916; that by reason of the increased demand for coal, there was still an estimated shortage of approximately fifty million tons. The brief points out that the exports for 1917 were but 1,200,000 tons more than the year 1916, and that coal consumed for bunkering purposes during the year 1917 was 1,800,000 less than in 1916. From these figures it is shown that the total amount of coal used for bunkering purposes and for exports in the year 1917 was 596,848 tons less than in 1916. It is pointed out that the U. S. Geological Survey has estimated that the known coal deposits in the United States within three thousand feet of the surface are estimated to be 3,538,554,000,000 tons, capable of supplying, at the present rate of consumption the needs of the country for four thousand years. Senator Reed submits the following questions and comments: The practical questions, however, are:

(a) What is the present producing capacity of the mines of the United States?

(b) To what extent can this production be increased within the next twelve months?

The mines now opened and being operated cannot be exhausted for many years. The limit upon production therefore, is—

1. Machinery.

2. Man power.

In order to operate the mines and get the coal to the ultimate consumers, two other factors must be considered: (a) Transportation; (b) Storage at point of consumption. In 1917 the bituminous mines, working at not to exceed 65 per cent capacity produced 544,261,000 tons. According to Dr. Garfield's estimate an increased production of 50,000,000 tons would have fully supplied the demand for that year. If the present production of 65 per cent brought 544,261,000 tons, then an increased activity of 5.97

per cent of the total capacity of the mines, would have produced the 50,000,000 needed to fill the gap between demand and production. In other words, it was only necessary to increase the output of the mines from 65 per cent to 70.97 per cent and all the coal needed would have been supplied. The witnesses substantially agreed with sufficient transportation available, the coal production could have been increased from 65 to 85 per cent. If the capacity of the mines was increased to 85 per cent, there would be produced of bituminous coal 710,722,000 tons or 111,722,000 tons more than at the present rate of consumption we need for all purposes. That the mines are capable of producing an adequate supply is shown by the circumstances that the mines which were in April producing approximately 1,600,000 tons per day, under a stimulus of high prices, had increased their production, up to July 14, to 1,905,000 tons per day, the largest production in the history of the United States before or since. Prior to 1916 the supply of bituminous coal was abundant. Railroads, and many other large consumers, were given contracts ranging as low as \$1.05 per ton mine run. In 1916 a shortage developed which caused a stimulation of prices and some alarm. These conditions were accentuated during the early part of 1917. The result was, during that period, a large part of the coal contracts were made at a considerable advance in prices. A general alarm at once spread over the country. Consumers began bidding against each other for a supply of coal. It is estimated that fully 60 per cent of the bituminous coal, or 326,400,000 tons of coal was contracted for at the following range of prices, viz: from \$3 to \$5.50 per ton.

HISTORY OF GOVERNMENT CONTROL

The United States entered the war on April 6, 1917. It was immediately recognized that there would be a greatly increased demand for coal. Shortly thereafter Mr. Peabody was informally requested to study the coal situation. On April 27 the Council of National Defense formally created a Committee of Coal Production with instructions to in every possible way increase the output of coal and cooperate with the Transportation Committee of the Advisory Commission in accelerating the movement of coal to points where most needed. The Committee immediately entered upon the work of settling labor disputes. It also created the Lake and Tidewater pools, thus reducing the number of consignments at tidewater fronts from 1,100 to 47. It cut the average detention of coal cars in half; increased the daily unloading capacity at Newport News from 6,600 tons to 24,100 tons, arranged to supply the navy with 1,700,000 tons at a price to be fixed by the Government. These results were accomplished by mutual agreement with the coal operators, with whom there was working in active cooperation, the United Mine Workers' Association. The Committee, after consultation,

fixed tentative maximum prices to hold only until the completion of the investigation of cost by the Federal Trade Commission and Mr. Peabody. Speaking generally, the maximum prices thus fixed were \$3 for eastern coal, and \$2.75 western coal, mine run. This was, again speaking generally, a reduction of \$2.50 to \$5.50 below the prices coal was then commanding in the open market. Up to this time the agreement was purely voluntary. It was the intention of the Committee fixing these prices, to fix them high enough so that all mines, capable of producing coal in substantial quantities, could operate.

On June 30, 1917, Secretary Baker issued a letter in which he stated that the Coal Production Committee was "Without power or authority to deal with the question of prices; that any attempt by it to fix a maximum price was beyond its legal power." He further declared, as his opinion, "That the price of \$3 suggested or agreed upon as a maximum is an exorbitant, unjust and oppressive price." He added, "I am sure that none of my associates in the Council will dissent from the view I have herein expressed, both on the limitation upon the powers of the Council and the Coal Production Committee, and the effect of the action alleged to have been taken." At once the cries swept over the country that the prices of the Lane Committee were exorbitant, and that further great reductions would be made. There immediately resulted a cancellation of orders; some of the operators kept to the Lane prices with disastrous effects upon their business. Other operators sold in the open market, regardless of the Lane agreement. Those who adhered to the Lane prices found their business was ruined. The action of the Lane Committee having been repudiated by Mr. Baker, chairman of the Council of National Defense, prices continued very high and rapidly fluctuated. The increased production which would ordinarily result from the stimulus of high prices was largely neutralized by elements of doubt and uncertainty which were artificially created. At the head of the list was the power of the Government to fix prices of coal, and even under some circumstances to commandeer mines. Unless these prices were fixed, neither the producer nor the consumer could tell the basis upon which contracts would be permitted, and accordingly neither could, with safety, plan for those industrial expansions necessitated by the war. This condition of absolute uncertainty continued from June 30, when the Lane agreement was repudiated, until August 21, when the Federal Trade Commission prices were promulgated. During that interval business men proceeded at their peril. Restriction production, and especially upon expansion, was the inevitable result. The period just referred to covered, in part, those months of the year best adapted for the production and especially for the distribution of coal. Threatened as we were by a shortage of transportation, it was vitally necessary to carry

them through the winter months, when increased burdens, coupled with storms and transportation difficulties, would restrict the movement of fuel. Instead of fixing a maximum price high enough to permit production, and, at the same time, to insure the public against extortion, months of valuable time were allowed to slip by. During this period the public was advised not to lay in a supply of coal. On May 15, 1917, the Federal Trade Commission desired

to hear from persons who knew of instances of extortionate prices being asked for coal, or where dealers were making false announcements of "coal shortage" in order to raise prices and frighten people into submitting to extortion and unwarranted advances. The Commission wants names, dates, and facts, and will vigorously take up and investigate and give wide publicity to those that it finds indulging in these practices. There is absolutely no call for any "panic" or panic prices, and the Trade Commission is frowning upon either operators, wholesalers, or retailers who do anything towards creating an abnormal condition, or who is asking abnormal prices.

We want the consumers to cooperate with us in finding out the dealers who are attempting extortion, and we will see that investigation is made and publicity given. There is plenty of coal for everybody, and the idea of a panic is foolish, and there will be plenty of cars to move the coal in, also. Buyers should keep their heads and refuse to buy at any such prices as are being asked in many instances.

In this connection it is interesting to notice that coal dealers who anticipated a real shortage and who stated the fact substantially as they afterward developed, that a coal shortage was likely to result, were severely criticized by members of the Federal Trade Commission if, indeed, they were not blacklisted. On August 21, the Federal Trade Commission fixed the prices of coal. On September 15, Dr. Garfield, in a public statement, advised the people if coal prices were unduly high to buy no more than sufficient fuel for actual present need, adding, that "the Government will see to it that unfair prices are reduced, and that every consumer receives his just share of the supply."

On October 5, the Fuel Administration issued another bulletin denying reports of coal shortage, either present or prospective. Those parts of the country which were already alarmed, were assured that while coal was being sent to the northwest in great quantities, they would receive their full share later.

INTERFERENCE WITH THE COURSE OF TRADE

We have heretofore called attention to the following causes tending to interfere with coal production, consumption, prices, viz:

(a) The fixation of prices by the Lane Committee and the subsequent repudiation of the authority of that Committee.

(b) Elapse of nearly sixty days between the repudiation of the prices of the Lane Committee and the promulgation of new prices by the Federal Trade Commission.

(c) The constant assurances given to the public of an abundant supply of coal, together with advice not to purchase at present prices.

It remains to trace certain other acts of interference. Prominent among these is the policy of issuing priority orders.

The record gives plainly the evidence of the utter failure of priority orders. It seems pretty conclusively proven that priorities and preferences introduce confusion and resulted in tying up thousands of freight cars and creating embargoes in many of the great terminal yards of the country. This evidence has already been quoted. It seems to be borne out by the fact that the first priority order was issued on August 20. At that time the car shortage was only a little over 30,000. Within sixty days it amounted to over 90,000, and before 120 days had elapsed, had reached the stupendous figure of 140,000.

BUNKERING AND FOREIGN COAL

The moment the United States entered the war, the paramount importance of tonnage was recognized. The man on the street understood that tonnage was pitifully short and, therefore, its constant use the more imperative. Under such circumstances no ship should have been kept at the dock a single moment for want of coal. The bunkering of coal was even more important than new ships, for without such coal the ships we possessed could not move. Prior to any governmental interference there was a commercial machinery which had been created through many years of experience, and which devoted its entire energies to the bunkering of ships. Many of the concerns engaged in the bunkering business had been in existence a great number of years and had in their employ practical experts not theorists or dreamers. These men knew where the coal was, how to secure it, and where it would be needed. The Government by various orders, put this machinery out of commission, or completely subordinated it to the Fuel Administration, so that it can be fairly said the Fuel Administration was substituted for business machinery theretofore existing. Senator Reed closes the remarkable statement from which the above excerpts are taken, with the following conclusion:

"I submit that no great business can prosper unless the conditions under which it is to be conducted are reasonably stable." Amidst the chaos now existing in the coal business, from the mine to the retail yard, one fact indisputably appears, viz., that uncertainty must at once give place to stability, or we will in the near future be confronted by a coal shortage of the most disastrous character. What coal producer can be expected to expend large sums of money to increase the output of his mine, when he is informed in advance that the prices he will in the future be allowed to charge, are subject to change at any moment by individuals over whom he has no possible control and who may be either informed or uninformed on coal costs or conditions? What coal pro-

ducer can safely make contracts when he is informed that his contract is at any moment liable to be annulled? Such a contract ceases to have any real force. This cannot be relied upon as a basis for any kind of calculation or business enterprise.

It seems equally plain that the consumers of coal must be told with reasonable certainty what coal prices and what coal contracts they can rely upon. A denial of this places them in a position of uncertainty, so that they do not know what contracts they dare make, what plans for the future they can safely lay down. Whatever diversion of opinion there may be on other questions, it seems to me in view of the fact that practically all coal contracts will terminate on the 1st of April, there should be an immediate announcement of prices which will be permitted and of contracts which will be allowed, and that a fixed period of time should be stated within which the business world may safely calculate and contract.

It is plain in that the prices allowed to be charged must be reasonably remunerative. If this is denied, the maximum production cannot be expected. It also seems too clear for dispute that restrictions upon business ought to be reduced to a minimum; that experimentation and guess work concerning a great fundamental business upon which all other business to a large extent depends, ought to cease. Obviously, this great fundamental business ought not to be wrested from experienced hands and taken over by those who, however good their intentions, are utterly lacking in that knowledge essential to its successful conduct.

A. W. CALLOWAY NEW DIRECTOR OF BITUMINOUS DISTRIBUTION

A. W. Calloway has been made Director of Bituminous Coal Distribution. Mr. Calloway is president of the Davis Coal and Coke Company, of Baltimore, and of the Terminal Railroad and Coal Company, Pittsburgh.

Mr. Calloway was selected because of his familiarity with the necessary movement of coal into the eastern producing districts.

In connection with Mr. Calloway's appointment, J. D. A. Morrow, recently appointed Manager of Distribution, stated that this is a part of the plan of placing the distribution of coal in the hands of practical coal men as far as feasible. In the distribution of bituminous coal, Mr. Calloway will have competent coal salesmen and shippers in charge of the various subdivisions of his work. In each of the producing regions he will have at his command a District Representative of the United States Fuel Administration who is a coal man familiar with conditions in his particular territory. Nearly all of these representatives have already been appointed, and most of them are now at work.

NEED FOR RESEARCH INCREASED BY WAR

Pressing Metallurgical Problems Stand Between Consumer and Many Domestic Mineral Resources

A plan whereby the immediate crying need for ships, ships and more ships to take food and supplies to our men in France can in a degree be met without waiting upon the construction of new ships, was outlined today by Secretary of the Interior Lane. With a ton of shipping more valuable than perhaps can be calculated in the present emergency, Secretary Lane proposes that American mines be developed to their fullest capacity at once, especially in the production of those minerals essential to war making, and that the ships that have been bringing to these shores 2,000,000 tons of these minerals be released at once for taking food and supplies to France.

American mines, in the opinion of Secretary Lane, can supply all these essential war minerals if they are given the proper opportunity and assistance by the Federal Government.

"At the present time," said Secretary Lane, "every ship that can be spared is badly needed to extend our military operations in France. The minerals, which we can supply and which are imported, come from many distant sources, involving long voyages and delays in loading. These minerals represent an import of about 2,000,000 long tons per year, three-fourths of which can be eliminated in case of extreme necessity. Every additional day spent in the submarine zone is not only dangerous but unnecessary. In addition to the sacrifice of ships, the importation of bulky minerals congests our ports and exhausts our credit in the purchase of supplies abroad.

"The importation of these minerals involves not only the diversion of ship tonnage from military service, but also requires that this country furnish fuel, equipment and supplies to the foreign mines producing these minerals and also the transportation to these countries of other products which they demand in return for their minerals."

"What particular minerals are these?" the Secretary was asked.

"The minerals to which I refer are the most important minerals for the manufacture of munitions. In fact, their importance is far greater than either their tonnage or value would indicate. The two fundamental materials in the production of all modern high-power explosives are nitrate, chiefly as nitric acid, and concentrated sulphuric acid made from pyrite or sulphur. Manganese is the most essential alloy for high-grade steel for munitions and important industrial uses. Flake graphite is used for crucibles required in the production of brass and crucible steel. Tin is required for tin plate

for utensils and cans for preserving food and bearing metal. Mercury is used as a fulminate to explode cartridges and shells, and is essential alloy for high-speed tool steel. Anti-high explosives. Potash is chiefly used for fertilizer with smaller amounts for explosives, soap, glass and chemicals. Tungsten is an essential alloy for high-speed tool steel. Antimony is required for hardening lead and bullets. Chromite is used to make an alloy for steel going into armor-plate, armor-piercing projectiles, tool steel and as a refractory lining in open hearth steel furnaces. Magnesite is used as a refractory in metallurgical plants. Mica is indispensable as an insulating material in the manufacture of electrical apparatus.

"American mines can produce all of these minerals, providing they are given the necessary assistance of the Federal Government. I have, therefore, asked Congress to make a special appropriation so that a large force of metallurgists can be set to work immediately on the necessary changes in practice to use lower grade manganese ores. Field parties of engineers and geologists must take samples for quick concentration tests to improve the quality of the domestic materials. Many new mines must be developed at once and if these mines are to survive after war conditions and become permanent industries, they must be able to operate efficiently and take advantage of the most improved methods. With this object in view, technical investigations suggested will inform the new operators of the best practice in their operations and will undertake to secure a technical solution of the difficulties which will make their products as desirable as that which was formerly imported. The development of new deposits, of better methods, and of substitute materials, gives assurance that a large part of this new development may be permanent and thus make us less dependent on foreign supplies for essential minerals.

"The Bureau of Mines has already completed a survey of pyrite mines of the country and of the principal sulphur deposits. It has made a preliminary study of the concentrated acid plants with a view to increasing their output. It has cooperated with the work leading to the establishment of nitrate plants. It has examined the principal manganese districts of the country and undertaken to analyze metallurgical practice as related to the use of lower grade alloys and ores. The principal technical work essential to these problems has been laid out, but has partially been brought to a standstill through lack of funds.

"A group of engineers must be organized to encourage the development of new pyrite mines and to hasten new development as rapidly as possible and to determine the need for priority assistance in the shipment of materials and products. The concentration of chromite ores is an immediate and pressing problem, as two-thirds of our supplies

still come from abroad. Improved milling methods and a study of the use of domestic graphite in crucibles would very rapidly increase the domestic production of this material. Under present uncertain conditions, the graphite industry is threatened with serious curtailment rather than expansion. It is absolutely essential that the consumption of such essential products as tungsten and quicksilver be carefully supervised and checked in order to make sure that these materials are properly used and do not fall are properly used and do not fall into alien enemy hands.

"The domestic producer of heretofore imported minerals in undertaking new operations needs information and assistance to hasten his production. The consumer in changing to new materials needs technical assistance in order to prevent the distribution and interruption of his products. Thus, the use of domestic minerals involves certain changes in practice and the development of new mines. A certain amount of technical investigation must precede the radical changes involved. The sooner this investigation is undertaken, the quicker the ships can be released for military purposes."

FUELLESS DAY ORDER REVOKED AFTER ENFORCEMENT ON 8 DAYS

Vastly improved weather and transportation conditions and a continuance of the embargoes authorized by the Director General of Railways were reasons given by Dr. Garfield for suspending on February 14 the heatless Mondays prescribed in the Fuel Administration regulation of January 17. The suspension order discontinued the operation of these sections of the order relating to the use of fuel on Mondays from February 18 to March 25, both inclusive.

State Fuel Administrators retain the full authority to establish and enforce such restrictions and regulations as may be made necessary by coal conditions in their respective communities.

Dr. Garfield announced, February 8, that in view of improved weather and transportation conditions in the south all provisions of regulation of January 17, 1918, were rescinded. Heatless Mondays are lifted from North Carolina, Tennessee, South Carolina, Georgia, Florida, Alabama, Mississippi and Louisiana.

The Sandy Run Mine, of the M. S. Kemmerer Coal Company, it is stated has one man digging coal who earned \$3,100 in 1917, and must pay an income tax on \$1,000. This looks encouraging for the miners. Mr. Kemmerer is a director of The American Mining Congress.

CHECK TO BE KEPT ON ALL PURCHASES OF COAL AFTER APRIL 1

Regulations governing the retail distribution of coal for the coal year beginning April 1, 1918, are under consideration by the United States Fuel Administration. The Fuel Administration, in order to avert a recurrence of the coal shortage conditions of the past winter, proposes to put into effect a definite plan for the proper and equitable distribution of coal to domestic consumers throughout the country.

In so far as possible, the regulations by the Fuel Administration will be made flexible, in order to enable local Fuel Administration officials to accommodate the general rules to their local conditions.

Fuel Administration officials at work on the retail distribution plan are considering an arbitrary limit on the amount of coal that may be delivered to domestic consumers. It has been proposed to base this limitation upon the amount of coal delivered to domestic consumers during the coal year of 1917. In ascertaining the requirements of domestic consumers for the coming year the amount of coal the consumer has on hand would be considered in the plan.

It is probable that local Fuel Administration officials will be given the authority to require consumers purchasing coal to submit an attested statement setting forth the amount of coal a consumer has on hand, amount he has ordered from dealers, total amount used during the year 1917, and the amount necessary to meet his requirements during the coal year of 1918.

It is expected that the retail distribution plan will be definitely decided upon early next week, in order that it may be made effective on April 1.

SNEAD BECOMES ASSISTANT TO FUEL ADMINISTRATOR GARFIELD

L. A. Snead has been appointed assistant to United States Fuel Administrator, and will give immediate attention to the development and establishment of a plan covering an equitable distribution of coal for domestic consumers and will visit various cities and localities in order to obtain first hand information as to conditions and the remedy necessary to meet the situation.

Coal-Mining Fatalities Increase

The demoralization forced upon the coal-mining industry by war-time conditions is said by the Bureau of Mines to be responsible for the highest fatality record from accidents in that industry in the last seven years.

During the year 1917, there were 2,695 men killed in coal mining, which is an increase of 470 over the previous year.

D. W. Brunton, who is now a member of the Naval Consulting Board, is a frequent visitor at Washington.

CURRENT FEDERAL LEGISLATION

Up to February 28 there had been introduced in the present session of Congress, 14,307 bills and 385 resolutions. Of these, 3,975 bills were introduced in the Senate together with 132 resolutions. The bills in the House numbered 10,332 and the resolutions, 253.

The following bills introduced since our last report will be of interest to the mining fraternity:

S. 3379 by Senator King, authorizing the Secretary of the Interior to consolidate holdings by the exchange of public coal lands for private coal lands in certain cases, it being expressly provided that nothing in the bill shall authorize the issuance, or treatment, of the privileges granted as script or assignable rights or privileges. This proposed legislation is now awaiting action by the Committee on Public Lands.

S. 3450 by Senator Gore, providing for the establishment of experiment stations in engineering and in the other branches of the mechanic arts in connection with the land grant colleges in various states and territories.

S. 3380 by Senator King, provides that there shall be no withdrawal of mineral lands of the United States from entry and occupancy by the President. It provides that no reserves of any character or description covering or including within its limits lands of the United States containing minerals shall be created except by act of Congress.

S. 3714 by Mr. Simmons, provides for the creation of a War Finance Corporation with a capital stock of \$500,000,000, to be subscribed by the Government, to be under the management of a Board of Directors consisting of the Secretary of the Treasury and four other persons to be appointed by the President, by and with the advice and consent of the Senate.

The corporation is authorized to afford financial assistance to enterprises whose operations are necessary or contributory to the prosecution of the war in cases where financing cannot be provided through regular banking channels and for the further purpose of regulating and controlling the sale and offering for sale of securities thereafter issued.

The corporation is authorized to subscribe for, acquire and own, buy, sell and deal in bonds and obligations of the United States and is authorized to issue bonds to the extent of \$4,000,000,000 to mature not less than one or more than five years after issued.

The bill provides for a Capital Issues Committee, to be appointed by the Federal Reserve Board with the approval of the Secretary of the Treasury, which shall have full control of all securities to be offered to the public and authority to grant licenses for the sale of any securities.

H. R. 8761: By Mr. Kelly, authorizes the President to requisition and take over in contiguous tracts of not less than 100 acres each, any area, and to operate any or all coal oil, copper, iron and timber lands, and all rivers and streams from which power is or may be developed, with or without all or any part of any works, plant or equipment for developing such lands or power existing at the time of taking; also, to sell at cost the products and power therefrom derived. The President is required to the greatest extent practical to use the business organization operating the things taken over and is authorized to employ in the operation thereof any qualified persons at such remuneration as he deems proper and reasonable.

The bill further provides that organizations of the persons employed in such undertakings shall not only be recognized but encouraged and that such organizations shall have an equal voice in the management, operation and control of such undertakings.

\$2,500,000 is appropriated for the expense of the Washington office in the management of the commission and the sum of \$250,000,000 is appropriated for the purposes of the Act, which is to constitute a revolving fund. The provisions of the Act shall expire two years after the close of the war, except as to such rights or obligations as shall have been created before the expiration of the Act.

H. R. 8833: By Mr. Denton of Indiana, provides for the reimbursement of persons deprived of employment by reason of the order of the Fuel Administrator closing down establishments for the purpose of conserving the coal supply of the nation.

H. R. 10265: By Representative Frank Clark of Florida, authorizes the Secretary of Labor to provide housing, local transportation and other community facilities for war needs of industrial workers engaged in industries connected with and essential to the national defense.

The sum of \$50,000,000 is provided for the carrying out of the provisions of the act which specifically points out that no work under the act shall be under a percentage or "cost plus" basis.

H. R. 8840: By Mr. Taylor of Colorado, provides for grants of coal lands to cities and incorporated towns for municipal purposes. It authorizes the Secretary of the Interior to patent lands of the United States classified as coal lands within any state or territory as a source of coal supply for the use of any city or town and for the use of inhabitants and industries thereof.

No more than 640 acres can be patented to a city and 160 acres for a town. The bill has been referred to the Committee on Public Lands.

H. R. 9199 introduced by Representative

Kitchin and referred to the Committee on Ways and Means is identical with S. 3714, providing further for the national security and defense, and for the purpose of assisting in the prosecution of the war, and to provide credits for industries, etc.

House Concurrent Resolution 30, introduced by Mr. Hilliard, urges the Director General of Transportation and the Fuel Administrator to give the earliest possible attention to the question of constructing a tunnel through the main range of the Rocky Mountains under or near James Peak in Colorado, which will give adequate transportation for the great deposits of coal of northwestern parts of the state.

The bill declares that these coal deposits in Routt and Moffat counties are regarded as the greatest in the world, it being declared that anthracite exists there in greater quantities than in the whole of Pennsylvania.

The Moffat Railroad extending from the City of Denver through Routt County, now reaches this field, but the grade imposed in crossing the main range of the Rocky Mountains which makes transportation difficult at any time and during the winter period impossible of accomplishment.

With the completion of the tunnel suggested, it is pointed out that this immense coal supply would become accessible to Denver and over the lines of railroads going into that city be carried to many parts of the country now fuel impoverished.

H. J. Resolution 232 by Mr. Robbins of Pennsylvania, suspends penalty in government contracts where compliance was prevented by Fuel Administrator suspending operations of plants. It has been referred to the Committee on Judiciary.

RAILROAD FUEL QUESTIONS DISCUSSED AT CONFERENCE

A general conference on questions arising in connection with the supply of fuel coal to railroads was called recently by the United States Fuel Administration. Representatives of coal mine operators, eastern railroads, the office of the Director General of Railroads and the Fuel Administration attended.

The Director General of Railroads and the Fuel Administration have undertaken to insure the cooperation of all concerned in settling various questions which have arisen regarding the supply of coal to the railroads, which are the largest users of coal in the country.

The conference selected W. K. Fields, President of the National Coal Association as Chairman and had a general discussion of recommendations to the Director General of Railroads and the Fuel Administration designed to secure the following results:

1. To provide a definite and dependable supply of good fuel for the railroads.

2. To avoid excessive use of transportation in obtaining railroad fuel.

3. To retain for other uses some coals of special quality which are now being used as railroad fuel coal.

4. To so distribute railroad fuel in connection with all other distribution as to obtain as nearly equal running time for all mines.

The matter of the distribution of coal cars to the mines was the subject of extended discussion, some of the operators contending that there should be no preferential allotment of cars, but that all the mines should share equally.

A committee was named consisting of one member from each of the railroads represented in the conference and one member representing each of the coal districts present, which should consider the questions they had been called to discuss and report its recommendations to the conference.

The railroads appointed the following committeemen: Delaware & Hudson, J. White Spray; New York Central, S. B. Wright; Erie, W. R. Collins; New York, Ontario & Western, Chas. A. Draper; Norfolk & Western, Geo. Dungleston, Jr.; Lehigh Valley, F. L. Blendinger; Bangor & Aroostock and Boston & Maine, Frank C. Wright; Pennsylvania and Long Island, C. M. Sheaffer; Delaware, Lackawanna & Western, C. C. Hubbell; Canadian Northern, H. T. Rawlings; Central Railroad of New Jersey, J. F. Hinterleiter; Chesapeake & Ohio, D. T. Jellison; Baltimore & Ohio, W. L. Robinson; New York, New Haven & Hartford, Geo. G. Yeomans; Philadelphia & Reading, E. B. Crosley.

The West Virginia coal districts named the following committeemen: Fairmont, C. H. Jenkins; Clarksburg, V. E. Goeke; Coal & Coke, R. B. Isner; Preston County, E. H. Gilbert; Scott's Run, S. D. Brady; Maryland, F. W. Wilshire; Irwin and Guyan, S. P. Hutchinson; Kanawha, W. M. Puckett; K. & M., Robt. Buka; Smokeless, T. F. Farrell; Thacker, Keyser Hood.

Pennsylvania coal districts named the following: Mr. Field, Chairman ex-officio; Conemaught, T. L. Eyre; N. Y. Central, Mr. T. H. Watkins; Cambria, C. H. Jacobs; Reynoldsville, J. W. Trounce; Tyrone and Clearfield, Chas. A. Owens; Somerset, Edw. B. Chase; Broad Top, C. J. Langdon; Greensburg and Latrobe, W. G. Ireland; Irwin, S. B. Hutchinson; Somerset (B. & O.), T. W. Guthrie; Pittsburgh, J. P. Walsh.

The committee adjourned to meet again March 8.

Coal Lands Restored

Secretary of the Interior Lane announces the approval by the President of the restoration of nearly 160,000 acres of withdrawn coal land in northeastern Montana, south of the Missouri River adjacent to the Fort Peck Indian Reservation.

PERSONALS

Dr. R. D. George, of Boulder, Colo., is in Washington, where he appeared before the House Committee hearings in regard to the oil shale industry of his State. Dr. George has for years been state geologist for Colorado, and his statement concerning the process of producing oil for shales commanded the attention of Washington authorities.

G. W. Lambourne, of Salt Lake City, Utah, and Mrs. Lambourne, were in the east during February spending several days at Washington and New York City.

Many prominent western mining men are in Washington at the present time in regard to the leasing bill upon which hearings are being held, among whom are: J. H. Fry, S. G. McMullin, A. L. Pierce, R. D. George, Mr. Potter, and Mr. Webb.

A. G. Mackenzie, secretary of the Utah Chapter of the American Mining Congress, who has been spending several weeks at the Washington headquarters of the organization, in regard to work on the Excess Profits Tax and matters of importance to western mining, has returned to Salt Lake City for a few weeks. He will be in the east again shortly.

Victor Brandt, of Tonopah, Nev., has been spending considerable time at Washington during recent months. Mr. Brandt is an authority upon potash, and is greatly interested in the silver question. He has recently become a member of the American Mining Congress, and will give his assistance in carrying on its work.

George M. Taylor, president of the Colorado Metal Mining Association, is in Washington.

Arthur Hovey Storrs, 15 Park Row, New York, N. Y., is secretary of the War Committee of Technical Societies, of which committee D. W. Brunton is chairman.

A. Scott Thompson, of Miami, who spent several weeks in Washington in the interest of the Miami mining district, has returned to his home.

Dr. Henry Mace Payne, who is in charge of the operation of the Bertha Coal Company and affiliated companies at Pittsburgh, was in Washington during the month, calling at the offices of the Mining Congress.

J. F. Callbreath, secretary of the American Mining Congress, attended the meeting of the American Institute of Mining Engineers in New York in February.

William M. Conrad, assistant secretary of the American Mining Congress, in charge of southern territory, has been spending a few weeks in Washington looking after special problems affecting the mining industry of that section.

J. T. Burns, western secretary of the American Mining Congress, attended the meeting of the Northwest Mining Convention at Spokane, stopping en route at Butte, Wallace, and Casper, Wyo.

Albert Burch, of California, was a caller at the offices of the American Mining Congress recently, en route to Cuba, where he has gone as a representative of the U. S. Bureau of Mines, for the purpose of ascertaining the capacity of Cuba, West Indies, and Central America to supply manganese ore. Mr. Burch has joined the Bureau's volunteer staff.

T. A. O'Donnell, of Los Angeles, has been chosen by Mark L. Requa, head of the oil division of the U. S. Fuel Administration, to take charge of the oil production problem. Mr. O'Donnell is well known to the oil industry. He is a member of the American Mining Congress.

Walter Douglas, president of the American Mining Congress, has been spending considerable time in Arizona and the West where the properties of the company are, but is again at his New York office.

The Central West Virginia Coal Operators' Association recently issued a statement showing that 129 out of 148 mines were shut down owing to the lack of railroad cars. This threw out of work 9,840 men, who could have produced 56,705 tons of coal during the day. The American Congress has been working steadily trying to increase the car supply for this district, and recent results are more satisfactory than for some time.

The Montevallo Mining Company, Mr. Lovell, president, have announced that they will secure an increased allotment of convicts under a new contract they have made with the State, and will materially increase their output. The Montevallo Company is the largest producer of domestic coal in Alabama.

George H. Crosby, a director of the American Mining Congress, is in California.

Sidney J. Jennings was elected president of the American Institute of Mining Engineers at their recent meeting in New York. Dr. Henry F. Drinker and Robert M. Raymond were elected vice-presidents; Hennen Jennings, Samuel A. Taylor, F. G. Cottrell, Arthur Thacher, and George C. Stone, directors.

Some interesting industrial facts about Arizona have recently been issued by The Manufacturer.

Arizona is erecting a \$175,000 school of mines, \$100,000 of which was donated by the mining companies.

Wages paid in mines and smelters estimated for 1917, \$71,000,000; men employed, 50,000.

Valuation of producing mines of Arizona, as compiled by the State Board of Equalization, is \$329,000,000.

Cohise County has a population of about 50,000, and per capita wealth of about \$2,000 each.

Of Arizona's total wages of \$71,000,000, the copper mining industry pays \$62,400,000, employing 40,000 men of the total of 50,000 employed in the State.

James S. Douglas is talked of for Governor of Arizona at the next election. Mr. Douglas is now in France, where he went early in the war, serving for \$1 per year and maintaining his own staff in charge of the stores and warehouses of the Red Cross. Some of the best men in Arizona are serving with him at his request, and consider it a great honor. He is the principal owner of the United Verde Extension Mining Company, and is an enthusiastic member of the American Mining Congress. He is a son of Dr. James S. Douglas, and a brother of Walter Douglas, the president of the American Mining Congress.

H. Foster Bain is returning from China to accept the assistant directorship of the U. S. Bureau of Mines, under Dr. Van H. Manning.

Southern Coke Prices Increased

An order affecting coke prices of the operators in certain coke districts of Georgia, Alabama, West Virginia and Oklahoma was issued last month. The order is in further regulation of the sale and distribution of bee hive coke.

The maximum price, f. o. b. cars at ovens, for any grade of coke made in Walker County, Georgia, by the Durham Coal & Coke Company shall be \$8.75 per ton.

Prices in the Black Creek, Brookwood and Blue Creek districts in Alabama may be \$8.00 per ton except that the coke made by the Empire Coal Company at Empire, Ala., may be charged at a maximum of \$8.25.

Maximum prices for the Big Seam district in Alabama are fixed at \$6.75 except that the New Castle Coal Company is permitted to charge \$7.50 for coke made at its ovens from coal mined in the same district.

The highest price that may be charged by the United States Cast Iron & Foundry Company, at Bessemer, Ala., is \$8.50 per ton.

A maximum price of \$8.00 per ton was placed upon coke produced in the New River district of West Virginia which is officially described in the order of the Fuel Administration as that territory on the Chesapeake & Ohio Railroad running from Thurmond, W.

Va., north as far as Elmo, and on the Chesapeake & Ohio and Kanawha, Glen Jean & Eastern Railroads running from Thurmond as far southwest as McDonald.

Oklahoma coke prices were fixed as follows:

The maximum price at the ovens of the McCurtain Coke Company at McCurtain, Okla., shall be \$10.75 for smelting coke and \$11.75 for selected 72 hour foundry coke.

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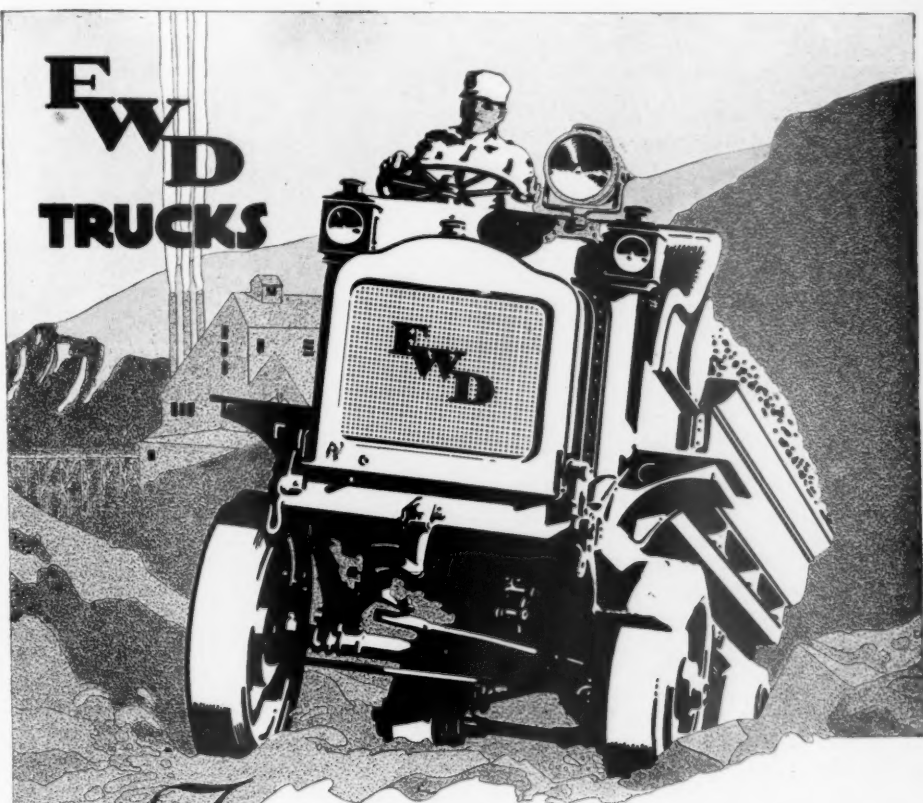
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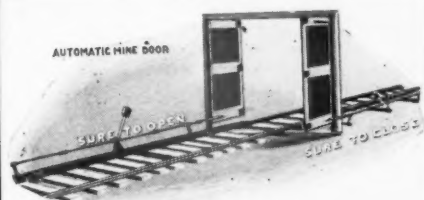
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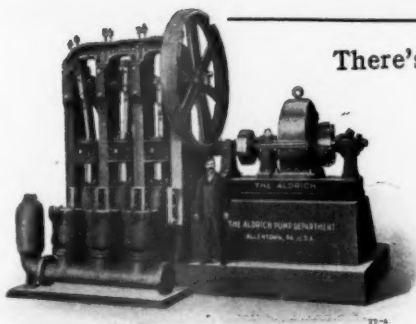
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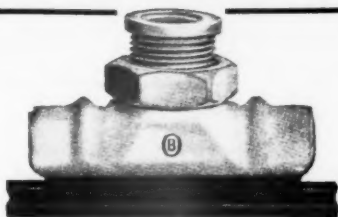


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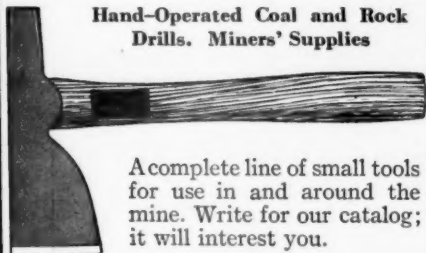


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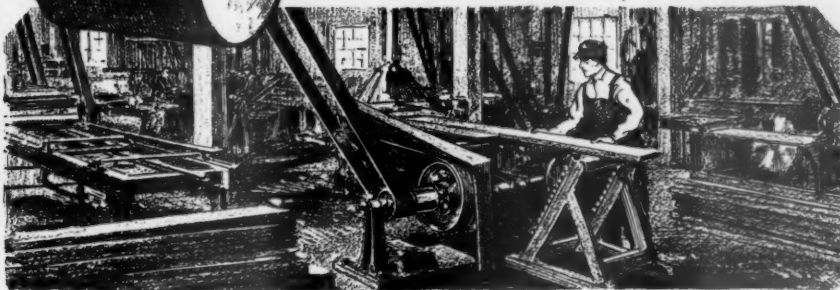
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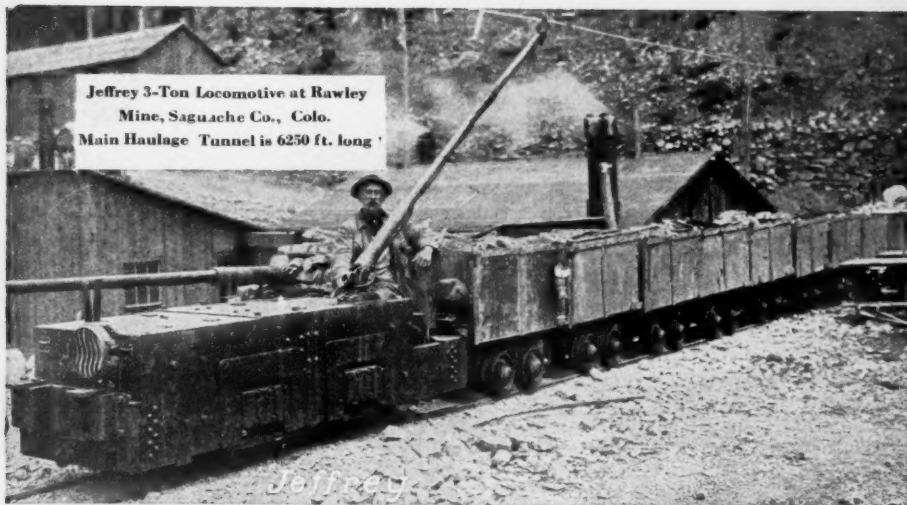
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